PUBLIC NOTICE

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AUCTION OF LOWER AND UPPER PAGING BANDS LICENSES SCHEDULED FOR MAY 25, 2010

COMMENT SOUGHT ON COMPETITIVE BIDDING PROCEDURES FOR AUCTION 87

AU Docket No. 09-205

Comments Due: December 21, 2009 Reply Comments Due: January 7, 2010

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I. INTRODUCTION

1. By this Public Notice, the Wireless Telecommunications Bureau ("Bureau") announces an auction of 9,603 paging licenses to commence on May 25, 2010 ("Auction 87"). These licenses consist of 7,752 licenses in the lower paging bands (35-36 MHz, 43-44 MHz, 152-159 MHz, 454-460 MHz) and 1,851 licenses in the upper paging bands (929-931 MHz).[1]

II. LICENSES TO BE OFFERED IN AUCTION 87

2. Auction 87 will include licenses that remained unsold from a previous auction, licenses on which a winning bidder in a previous auction defaulted, and licenses for spectrum previously associated with licenses that cancelled or terminated. In a few cases, the available license does not cover the entire geographic area due to an excluded area or previous partitioning.

3. Attachment A to this Public Notice provides a summary of the licenses available in Auction 87. Due to the large number of licenses in Auction 87, the complete list of licenses available for this auction will be provided in electronic format only, available as separate "Attachment A" files at http://wireless.fcc.gov/auctions/87/.[2]

A. License Descriptions

4. In the *Paging Reconsideration Order*, the Commission concluded that the lower bands licenses should be awarded in each of the 175 geographic areas known as Economic Areas (EAs), and the upper band licenses should be awarded in each of the 51 geographic areas known as Major Economic Areas (MEAs).[3] These EAs and MEAs encompass the United States, Guam, the Northern Mariana Islands, Puerto Rico, the U.S. Virgin Islands, and American Samoa.

5. Tables containing the block/frequency cross-reference list for the paging bands are included in "Attachment B" to this Public Notice.

B. Incumbency Issues

6. There are pre-existing paging incumbent licenses. Incumbent (non-geographic) paging licensees operating under their existing authorizations are entitled to full protection from co-channel interference.[4] Geographic area licensees are likewise afforded co-channel interference protection from incumbent licensees.[5] Adjacent geographic area licensees are obligated to resolve possible interference

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[1] *See* Revision of Part 22 and Part 90 of the Commission's Rules to Facilitate Future Development of Paging Systems, Implementation of Section 309(j) of the Communications Act – Competitive Bidding, WT Docket No. 96-18, PR Docket No. 93-253, *Memorandum Opinion and Order on Reconsideration and Third Report and Order*, FCC 99-98, 14 FCC Rcd 10,030 (1999) ("*Paging Reconsideration Order*").

[2] A paper copy of the complete list of licenses and any other documents relating to Auction 87 may be purchased from the Commission's duplicating contractor, Best Copy and Printing, Inc. ("BCPI"), 445 12th Street, SW, Room CY-B402, Washington, DC 20554, 800-378-3160 or at http://www.bcpiweb.com. When ordering documents from BCPI, please provide the appropriate FCC document number (for example, DA 09-2416 for this Public Notice).

[3] *See Paging Reconsideration Order*, 14 FCC Rcd at 10,043-46, ¶¶ 14-21.

[4] *Id*. at 10,059-60 ¶¶ 42-44. *See also* Revision of Part 22 and Part 90 of the Commission's Rules to Facilitate Future Development of Paging Systems, Implementation of Section 309(j) of the Communications Act – Competitive Bidding, WT Docket No. 96-18, PP Docket No. 93-253, *Second Report and Order and Further Notice of Proposed Rulemaking*, FCC 97-59, 12 FCC Rcd 2732, 2764 ¶¶ 57-58 (1997) ("*Paging Second Report and Order*"); 47 C.F.R. § 22.503(i).

[5] *Paging Second Report and Order*, 12 FCC Rcd at 2764 ¶ 57.

concerns of adjacent geographic area licensees by negotiating a mutually acceptable agreement with the neighboring geographic licensee.[6]

III. BUREAU SEEKS COMMENT ON AUCTION PROCEDURES

7. Section 309(j)(3) of the Communications Act of 1934, as amended, requires the Commission to "ensure that, in the scheduling of any competitive bidding under this subsection, an adequate period is allowed . . . before issuance of bidding rules, to permit notice and comment on proposed auction procedures . . . ."[7] Consistent with the provisions of Section 309(j)(3) and to ensure that potential bidders have adequate time to familiarize themselves with the specific rules that will govern the day-to-day conduct of an auction, the Commission directed the Bureau, under its existing delegated authority, to seek comment on a variety of auction-specific procedures prior to the start of each auction.[8] We therefore seek comment on the following issues relating to Auction 87.

A. Auction Design

1. Auction Format

8. We propose to auction all licenses included in Auction 87 using the Commission's standard simultaneous multiple-round ("SMR") auction format. As described further below, this type of auction offers every license for bid at the same time and consists of successive bidding rounds in which eligible bidders may place bids on individual licenses. Typically, bidding remains open on all licenses until bidding stops on every license. We seek comment on this proposal.

2. Anonymous Bidding

9. In many recent auctions the Commission has adopted procedures to limit the disclosure of certain bidder-specific information until after the auction.[9] Consistent with that practice, the Bureau proposes to conduct Auction 87 using certain procedures for limited information disclosure or "anonymous bidding." Specifically, the Bureau proposes to withhold, until after the close of bidding, public release of (1) bidders' license selections on their short-form applications (FCC Form 175), (2) the amounts of bidders' upfront payments and bidding eligibility, and (3) information that may reveal the identities of bidders placing bids and taking other bidding-related actions.

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[6] *Paging Reconsideration Order*, 14 FCC Rcd at 10,060-61, ¶¶ 45-46.

[7] 47 U.S.C. § 309(j)(3)(E)(i).

[8] *See* Amendment of Part 1 of the Commission's Rules — Competitive Bidding Procedures, Allocation of Spectrum Below 5 GHz Transferred from Federal Government Use, 4660-4685 MHz, WT Docket No. 97-82, ET Docket No. 94-32, *Third Report and Order and Second Further Notice of Proposed Rule Making*, FCC 97-413, 13 FCC Rcd 374, 448 ¶¶ 124-25 (1997) ("*Part 1 Third Report and Order*") (directing the Bureau to seek comment on specific mechanisms related to day-to-day auction conduct including, for example, the structure of bidding rounds and stages, establishment of minimum opening bids or reserve prices, minimum acceptable bids, initial maximum eligibility for each bidder, activity requirements for each stage of the auction, activity rule waivers, criteria for determining reductions in eligibility, information regarding bid withdrawal and bid removal, stopping rules, and information relating to auction delay, suspension or cancellation). *See also* 47 C.F.R. § 0.131; Amendment of Part 1 of the Commission's Rules — Competitive Bidding Proceeding, WT Docket No. 97-82, *Order, Memorandum Opinion and Order, and Notice of Proposed Rule Making*, FCC 97-60, 12 FCC Rcd 5686, 5697-98 ¶ 16 (1997) ("*Part 1 Order*").

[9] *See, e.g.,* "Auction of 700 MHz Band Licenses Scheduled for January 24, 2008; Notice and Filing Requirements, Minimum Opening Bids, Reserve Prices, Upfront Payments, and Other Procedures for Auctions 73 and 76," *Public Notice,* DA 07-4171, 22 FCC Rcd 18,141, 18,181-85 ¶¶ 145-156 (WTB 2007); "Auction of Advanced Wireless Services Licenses Scheduled for June 29, 2006; Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments and Other Procedures for Auction No. 66," *Public Notice,* FCC 06-47, 21 FCC Rcd 4562, 4600-05 ¶¶ 140-157 (2006) *("Auction 66 Procedures Public Notice"*).

10. Under these proposed limited information procedures, the amount of every bid placed and whether a bid was withdrawn would be disclosed after the close of every round, but the identities of bidders placing specific bids or withdrawals and the net bid amounts would not be disclosed until after the close of the auction.

11. Bidders would have access to additional information about their own bids. For example, bidders would be able to view their own level of eligibility, before and during the auction, through the Commission's Integrated Spectrum Auction System ("ISAS" or "FCC Auction System").

12. Moreover, for the purpose of complying with section 1.2105(c), the Commission's rule prohibiting certain communications between applicants (sometimes referred to as the "anti-collusion rule"), applicants would be made aware of other applicants with which they will not be permitted to cooperate, collaborate, or communicate, including discussing bids or bidding strategies.[10] Specifically, the Bureau would notify separately each applicant in Auction 87 whether applicants with short-form applications to participate in pending auctions, including but not limited to Auction 87, have applied for licenses in any of the same or overlapping geographic areas as that applicant.

13. After the close of bidding, bidders' license selections, upfront payment amounts, bidding eligibility, bids, and other bidding-related actions would be made publicly available.

14. We seek comments on our proposal to implement anonymous bidding in Auction 87. We also seek comment on alternatives to the use of anonymous bidding procedures for Auction 87. When the Commission proposed limited information disclosure procedures in 2006, it did so in response to analysis suggesting that under certain circumstances the competitiveness and economic efficiency of an SMR auction may be enhanced if such information is withheld until after the close of the auction.[11] Because of the large number of licenses available in Auction 87 and the circumstances we anticipate for this paging auction, the potential gains to economic efficiency and competitiveness from using limited information procedures may not warrant the costs and burdens of those procedures in this case. The Bureau encourages parties to provide information about the benefits and costs of complying with limited information procedures as compared with the benefits and costs of alternative procedures that would provide for the disclosure of more information on bidder identities and interests in the auction. If commenters believe that the Bureau should not adopt procedures to limit the disclosure of certain bidder-specific information until after the auction, they should explain their reasoning.

B. Auction Structure

1. Round Structure

15. Auction 87 will consist of sequential bidding rounds. The initial bidding schedule will be announced in a public notice to be released at least one week before the start of the auction.

16. The Commission will conduct Auction 87 over the Internet, and telephonic bidding will be available as well. The toll-free telephone number for the Auction Bidder Line will be provided to qualified bidders.

17. The Bureau proposes to retain the discretion to change the bidding schedule in order to foster an auction pace that reasonably balances speed with the bidders' need to study round results and adjust their bidding strategies. Under this proposal, the Bureau may change the amount of time for bidding rounds, the amount of time between rounds, or the number of rounds per day, depending upon bidding activity and other factors. The Bureau seeks comment on this proposal. Commenters may wish to address the role of the bidding schedule in managing the pace of the auction and the tradeoffs in managing auction pace by bidding schedule changes, by changing the activity requirements or bid amount parameters, or by using other means.

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[10] *See* 47 C.F.R. § 1.2105(c).

[11] *Auction 66 Comment Public Notice*, 21 FCC Rcd at 799.

2. Stopping Rule

18. The Bureau has discretion "to establish stopping rules before or during multiple round auctions in order to terminate the auction within a reasonable time."[12] For Auction 87, the Bureau proposes to employ a simultaneous stopping rule approach. A simultaneous stopping rule means that all licenses remain available for bidding until bidding closes simultaneously on all licenses. More specifically, bidding will close simultaneously on all licenses after the first round in which no bidder submits any new bids, applies a proactive waiver, or withdraws any provisionally winning bids.[13] Thus, unless the Bureau announces alternative stopping procedures, bidding will remain open on all licenses until bidding stops on every license. Consequently, it is not possible to determine in advance how long the auction will last.

19. Further, the Bureau proposes to retain the discretion to exercise any of the following options during Auction 87:

a) Use a modified version of the simultaneous stopping rule. The modified stopping rule would close the auction for all licenses after the first round in which no bidder applies a waiver, withdraws a provisionally winning bid, or places any new bids on any license for which it is not the provisionally winning bidder. Thus, absent any other bidding activity, a bidder placing a new bid on a license for which it is the provisionally winning bidder would not keep the auction open under this modified stopping rule.

b) Declare that the auction will end after a specified number of additional rounds ("special stopping rule"). If the Bureau invokes this special stopping rule, it will accept bids in the specified final round(s) after which the auction will close.

c) Keep the auction open even if no bidder submits any new bids, applies a waiver, or withdraws any provisionally winning bids. In this event, the effect will be the same as if a bidder had applied a waiver. The activity rule, therefore, will apply as usual and a bidder with insufficient activity will either lose bidding eligibility or use a waiver.

20. The Bureau proposes to exercise these options only in certain circumstances, for example, where the auction is proceeding unusually slowly or quickly, there is minimal overall bidding activity, or it appears likely that the auction will not close within a reasonable period of time or will close prematurely. Before exercising certain of these options, the Bureau is likely to attempt to change the pace of the auction by, for example, changing the number of bidding rounds per day and/or changing minimum acceptable bids. The Bureau proposes to retain the discretion to exercise any of these options with or without prior announcement during the auction. We seek comment on these proposals.

3. Information Relating to Auction Delay, Suspension, or Cancellation

21. For Auction 87, the Bureau proposes that, by public notice or by announcement during the auction, the Bureau may delay, suspend, or cancel the auction in the event of natural disaster, technical obstacle, administrative or weather necessity, evidence of an auction security breach or unlawful bidding activity, or for any other reason that affects the fair and efficient conduct of competitive bidding.[14] In such cases, the Bureau, in its sole discretion, may elect to resume the auction starting from the beginning of the current round, resume the auction starting from some previous round, or cancel the auction in its

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[12] 47 C.F.R. § 1.2104(e).

[13] Proactive waivers are described in Section III.C.3. "Activity Rule Waivers and Reducing Eligibility," provisionally winning bids are defined in Section III.C.6. "Provisionally Winning Bids," and bid withdrawals are described in Section III.C.8. "Bid Withdrawal," below.

[14] 47 C.F.R. § 1.2104(i).

entirety. Network interruption may cause the Bureau to delay or suspend the auction. The Bureau emphasizes that exercise of this authority is solely within the discretion of the Bureau, and its use is not intended to be a substitute for situations in which bidders may wish to apply their activity rule waivers. The Bureau seeks comment on this proposal.

C. Auction Procedures

1. Upfront Payments and Bidding Eligibility

22. The Bureau has delegated authority and discretion to determine an appropriate upfront payment for each license being auctioned.[15] A bidder's upfront payment is a refundable deposit to establish eligibility to bid on licenses. Upfront payments related to the licenses for specific spectrum subject to auction protect against frivolous or insincere bidding and provide the Commission with a source of funds from which to collect payments owed at the close of the auction.[16]

23. For Auction 87, we propose to make the upfront payments equal to the minimum opening bids, which are established as described in Section III.C.4., below. The specific upfront payments for each license are set forth in the complete list of licenses available for Auction 87, available as separate "Attachment A" files at http://wireless.fcc.gov/auctions/87/. We seek comment on this proposal.

24. The Bureau further proposes that the amount of the upfront payment submitted by a bidder will determine the bidder's initial bidding eligibility in bidding units. The Bureau proposes that each license be assigned a specific number of bidding units equal to the upfront payment listed for the license, on a bidding unit per dollar basis.[17] The specific bidding units for each license are set forth in the complete list of licenses available for Auction 87, available as separate "Attachment A" files at http://wireless.fcc.gov/auctions/87/. The number of bidding units for a given license is fixed and does not change during the auction as prices rise. A bidder's upfront payment is not attributed to specific licenses. Rather, a bidder may place bids on any combination of licenses it selected on its short-form application (FCC Form 175) as long as the total number of bidding units associated with those licenses does not exceed its current eligibility.

25. Eligibility cannot be increased during the auction; it can only remain the same or decrease. Thus, in calculating its upfront payment amount and hence its initial bidding eligibility, an applicant must determine the maximum number of bidding units it may wish to bid on (or hold provisionally winning bids on) in any single round, and submit an upfront payment amount covering that total number of bidding units. Provisionally winning bids are bids that would become final winning bids if the auction were to close in that given round.[18]

26. The Bureau seeks comment on these proposals.

2. Activity Rule

27. In order to ensure that the auction closes within a reasonable period of time, an activity rule requires bidders to bid actively throughout the auction, rather than wait until late in the auction before

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[15] *See Part 1 Order,* 12 FCC Rcd at 5697-98 ¶ 16. *See also Part 1 Third Report and Order*, 13 FCC Rcd at 425 ¶ 86; Implementation of Section 309(j) of the Communications Act–Competitive Bidding, PP Docket No. 93-253, *Second Report and Order*, FCC 94-61, 9 FCC Rcd 2348, 2378-79 ¶¶ 171-75 (1994) ("*Competitive Bidding Second Report and Order*").

[16] *See Competitive Bidding Second Report and Order*, 9 FCC Rcd at 2378-79 ¶¶ 171-76.

[17] "Former Defaulters" — *i.e.*, applicants, including any of their affiliates, any of their controlling interests, or any of the affiliates of their controlling interests, that in the past have defaulted on any Commission license or been delinquent on any non-tax debt owed to any Federal agency, but that have since remedied all such defaults and cured all of their outstanding non-tax delinquencies — are required to pay upfront payments that are fifty percent more than the normal upfront payment amounts. 47 C.F.R. § 1.2106(a).

[18] *See* Section III.C. 6. "Provisionally Winning Bids," below.

participating. A bidder's activity in a round will be the sum of the bidding units associated with any licenses upon which it places bids during the current round and the bidding units associated with any licenses for which it holds provisionally winning bids. Bidders are required to be active on a specific percentage of their current bidding eligibility during each round of the auction. Failure to maintain the requisite activity level will result in the use of an activity rule waiver, if any remain, or a reduction in the bidder's eligibility, possibly curtailing or eliminating the bidder's ability to place additional bids in the auction.[19]

28. The Bureau proposes to divide the auction into at least two stages, each characterized by a different activity requirement.[20] The auction will start in Stage One. The Bureau proposes to advance the auction to the next stage by announcement during the auction. In exercising this discretion, the Bureau will consider a variety of measures of auction activity, including but not limited to the percentage of licenses (as measured in bidding units) on which there are new bids,[21] the number of new bids, and the increase in revenue. The Bureau seeks comment on these proposals.

29. The Bureau proposes the following activity requirements, while noting again that the Bureau retains the discretion to change stages unilaterally by announcement during the auction:

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

Stage Two: In each round of the second stage, a bidder desiring to maintain its current bidding eligibility is required to be active on 95 percent of its current bidding eligibility. Failure to maintain the required activity level will result in the use of an activity rule waiver or a reduction in the bidder's bidding eligibility for the next round of bidding. During Stage Two, a bidder's reduced eligibility for the next round will be calculated by multiplying the bidder's current round activity by twenty-nineteenths (20/19).

30. Under this proposal, the Bureau will retain the discretion to change the activity requirements during the auction. For example, the Bureau could decide to add an additional stage with a higher activity requirement, not to transition to Stage Two if it believes the auction is progressing satisfactorily under the Stage One activity requirement, or to transition to Stage Two with an activity requirement that is higher or lower than the 95 percent proposed herein.[22] If the Bureau exercises this discretion, it will alert bidders by announcement in the FCC Auction System.

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[19] *See* Section III C.3. "Activity Rule Waivers and Reducing Eligibility," below.

[20] *See* 47 C.F.R. § 1.2104 (g).

[21] For example, when monitoring activity for determining when to change stages, the Bureau may consider the percentage of bidding units of the licenses receiving new provisionally winning bids, excluding any FCC-held licenses. In past auctions, the Bureau has generally changed stages when this measure was approximately twenty percent or below for three consecutive rounds of bidding.

[22] If the Bureau implements stages with activity requirements other than the ones listed above, a bidder's reduced eligibility for the next round will be calculated by multiplying the bidder's current round activity by the reciprocal of the activity requirement. For example, with a 98 percent activity requirement, the bidder's current round activity would be multiplied by 50/49; with a 100 percent activity requirement, the bidder's current round activity would become its bidding eligibility (current round activity would be multiplied by 1/1).

3. Activity Rule Waivers and Reducing Eligibility

31. Use of an activity rule waiver preserves the bidder's eligibility despite the bidder's activity in the current round being below the required minimum level. An activity rule waiver applies to an entire round of bidding, not to particular licenses. Activity rule waivers can be either proactive or automatic and are principally a mechanism for bidders to avoid the loss of bidding eligibility in the event that exigent circumstances prevent them from bidding in a particular round.

32. The FCC Auction System assumes that a bidder not meeting the activity requirement would prefer to apply an activity rule waiver (if available) rather than lose bidding eligibility. Therefore, the system will automatically apply a waiver at the end of any bidding round in which a bidder's activity level is below the minimum required unless (1) the bidder has no activity rule waivers remaining, or (2) the bidder overrides the automatic application of a waiver by reducing eligibility, thereby meeting the activity requirement. If a bidder has no waivers remaining and does not satisfy the required activity level, its eligibility will be permanently reduced, possibly curtailing or eliminating the bidder's ability to place additional bids in the auction.

33. A bidder with insufficient activity may wish to reduce its bidding eligibility rather than use an activity rule waiver. If so, the bidder must affirmatively override the automatic waiver mechanism during the bidding round by using the "reduce eligibility" function in the FCC Auction System. In this case, the bidder's eligibility is permanently reduced to bring the bidder into compliance with the activity rule as described above. Reducing eligibility is an irreversible action. Once eligibility has been reduced, a bidder will not be permitted to regain its lost bidding eligibility, even if the round has not yet closed.

34. Under the proposed simultaneous stopping rule, a bidder may apply an activity rule waiver proactively as a means to keep the auction open without placing a bid. If a bidder proactively applies an activity rule waiver (using the "apply waiver" function in the FCC Auction System) during a bidding round in which no bids are placed or withdrawn, the auction will remain open and the bidder's eligibility will be preserved. An automatic waiver applied by the FCC Auction System in a round in which there are no new bids, withdrawals, or proactive waivers will not keep the auction open. A bidder cannot apply a proactive waiver after bidding in a round, and applying a proactive waiver will preclude a bidder from placing any bids in that round.[23] Applying a waiver is irreversible; once a proactive waiver is submitted, that waiver cannot be unsubmitted, even if the round has not yet closed.

35. Consistent with recent auctions of wireless spectrum, the Bureau proposes that each bidder in Auction 87 be provided with three activity rule waivers that may be used as set forth above at the bidder's discretion during the course of the auction. The Bureau seeks comment on this proposal.

4. Reserve Price or Minimum Opening Bids

36. Section 309(j) calls upon the Commission to prescribe methods for establishing a reasonable reserve price or a minimum opening bid amount when FCC licenses are subject to auction, unless the Commission determines that a reserve price or minimum opening bid amount is not in the public interest.[24] Consistent with this mandate, the Commission has directed the Bureau to seek comment on the use of a minimum opening bid amount and/or reserve price prior to the start of each auction.[25]

37. Normally, a reserve price is an absolute minimum price below which an item will not be sold. Reserve prices can be either published or unpublished. A minimum opening bid, on the other hand, is the minimum bid price set at the beginning of the auction below which no bids are accepted. It is generally used to accelerate the competitive bidding process. Also, the auctioneer often has the discretion to lower

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[23] In general, once a bidder places a proactive waiver during a round, the FCC Auction System does not allow the bidder to take any other bidding-related action, including placing or withdrawing bids later in that round.

[24] 47 U.S.C. § 309(j)(4)(F). *See also* 47 C.F.R. § 1.2104(c) and (d).

[25] *Part 1 Third Report and Order*, 13 FCC Rcd at 454-55 ¶ 141. *See also* 47 C.F.R. § 1.2104(c).

the minimum opening bid amount later in the auction. It is also possible for the minimum opening bid and the reserve price to be the same amount.

38. In light of Section 309(j)'s requirements, the Bureau proposes to establish minimum opening bid amounts for Auction 87. The Bureau believes a minimum opening bid amount, which has been used in other auctions, is an effective bidding tool for accelerating the competitive bidding process. The Bureau does not propose a separate reserve price for the licenses to be offered in Auction 87.

39. For previous auctions of paging licenses (Auctions 40 and 48), the Commission set minimum opening bid amounts based on the winning bid amounts from a previous auction for paging licenses in the same area.[26] The results of these calculations were subject to a minimum amount — e.g., a "floor" of $500 in Auction 48.[27] In Auction 48, a large proportion of the licenses won were won at or near the minimum opening bid amount.[28] Given the history of these licenses, we propose to set the minimum opening bid for each license available in Auction 87 at $500.

40. The Bureau seeks comment on this proposal. If commenters believe that these minimum opening bid amounts will deter substantial numbers of bidders from placing bids on licenses, or are not reasonable amounts, or should instead operate as a reserve price, they should explain why this is so, and comment on the desirability of an alternative approach. Commenters are advised to support their claims with valuation analyses and suggested reserve prices or minimum opening bid amount levels or formulas. In establishing minimum opening bid amounts, we particularly seek comment on such factors as the amount of spectrum being auctioned, levels of incumbency within these spectrum bands, the availability of technology to provide service, the size of the service areas, issues of interference with other spectrum bands and any other relevant factors that could reasonably have an impact on valuation of the licenses being auctioned. We note that we have not attempted to adjust minimum opening bid amounts for licenses based on precise levels of incumbency within particular geographic areas, and have instead proposed a formula that is more easily administered, and that is intended to reflect overall incumbency levels. The Bureau seeks comment on this approach, and on whether, consistent with Section 309(j), the public interest would be served by having no minimum opening bid amount or reserve price.

5. Bid Amounts

41. The Bureau proposes that, in each round, eligible bidders be able to place a bid on a given license using one or more pre-defined bid amounts.[29] Under this proposal, the FCC Auction System interface will list the acceptable bid amounts for each license. The Bureau proposes to calculate bid amounts as described below.

42. The first of the acceptable bid amounts is called the minimum acceptable bid amount. The minimum acceptable bid amount for a license will be equal to its minimum opening bid amount until there is a provisionally winning bid on the license. After there is a provisionally winning bid for a license, the minimum acceptable bid amount will be a certain percentage higher. That is, the minimum acceptable bid amount will be calculated by multiplying the provisionally winning bid amount times one

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[26] "Lower and Upper Paging Bands Auctions Scheduled for June 26, 2001; Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments and Other Procedural Issues," *Public Notice*, DA 01-850, 16 FCC Rcd 7657, 7688 (WTB 2001); "Lower and Upper Paging Bands Auctions Scheduled for May 13, 2003; Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments and Other Procedural Issues," *Public Notice*, DA 02-3560, 17 FCC Rcd 27,799, 27,832 (WTB 2002) ("*Auction 48 Procedures Public Notice*").

[27] *Auction 48 Procedures Public Notice*, 17 FCC Rcd at 27,832.

[28] "Lower and Upper Paging Bands Auction Closes; Winning Bidders Announced; Down Payments Due June 13, 2003; FCC Forms 601 and 602 Due June 13, 2003; Ten-Day Petition to Deny Period," *Public Notice*, DA 03-1836, 18 FCC Rcd 11,154 (WTB 2003).

[29] Bidders must have sufficient eligibility to place a bid on the particular license. *See* Section III.C.1. "Upfront Payments and Bidding Eligibility," above.

plus the minimum acceptable bid percentage. If, for example, the minimum acceptable bid percentage is 10 percent, the minimum acceptable bid amount will equal (provisionally winning bid amount) * (1.10), rounded.[30] In the case of a license for which the provisionally winning bid has been withdrawn, the minimum acceptable bid amount will equal the second highest bid received for the license.[31]

43. For Auction 87, the Bureau proposes to use a minimum acceptable bid percentage of 10 percent. This means that the minimum acceptable bid amount for a license will be approximately 10 percent greater than the provisionally winning bid amount for the license.

44. Any additional bid amounts are calculated using the minimum acceptable bid amount and a bid increment percentage, which need not be the same as the percentage used to calculate the minimum acceptable bid amount. The first additional acceptable bid amount equals the minimum acceptable bid amount times one plus the bid increment percentage, rounded. If, for example, the bid increment percentage is 5 percent, the calculation is (minimum acceptable bid amount) * (1 + 0.05), rounded, or (minimum acceptable bid amount) * 1.05, rounded; the second additional acceptable bid amount equals the minimum acceptable bid amount times one plus two times the bid increment percentage, rounded, or (minimum acceptable bid amount) * 1.10, rounded; etc. The Bureaus will round the results using the Commission's standard rounding procedures for auctions.[32]

45. The Bureau seeks comment on whether to start with eight additional bid amounts (for a total of nine bid amounts), or with fewer or no additional bid amounts, in the event that anonymous bidding is implemented for Auction 87. In particular, commenters should address the issue of additional bid amounts in light of particular circumstances of Auction 87, including the nature of the license inventory. If the Bureau allows additional bid amounts, it proposes to use a bid increment percentage of 5 percent. If the Bureau does not adopt anonymous bidding procedures for Auction 87, the Bureau proposes to start with only one bid amount per license (the minimum acceptable bid amount and no additional bid amounts).

46. The Bureau retains the discretion to change the minimum acceptable bid amounts, the minimum acceptable bid percentage, the bid increment percentage, and the number of acceptable bid amounts if the Bureau determines that circumstances so dictate. Further, the Bureau retains the discretion to make such changes on a license-by-license basis.

47. The Bureau seeks comment on the above proposals. Commenters may wish to address the role of the minimum acceptable bids and the number of acceptable bid amounts in managing the pace of the auction and the tradeoffs in managing auction pace by changing the bidding schedule, activity requirements, or bid amounts, or by using other means.

6. Provisionally Winning Bids

48. Provisionally winning bids are bids that would become final winning bids if the auction were to close in that given round. At the end of a bidding round, a provisionally winning bid for each license will be determined based on the highest bid amount received for the license. In the event of identical high bid amounts being submitted on a license in a given round (i.e., tied bids), we will use a random number generator to select a single provisionally winning bid from among the tied bids. (Each bid is assigned a random number, and the tied bid with the highest random number wins the tiebreaker.) The remaining bidders, as well as the provisionally winning bidder, can submit higher bids in subsequent rounds. However, if the auction were to end with no other bids being placed, the winning bidder would be the one

[30] Results are rounded using the Commission's standard rounding procedure for auctions: results above $10,000 are rounded to the nearest $1,000; results below $10,000 but above $1,000 are rounded to the nearest $100; and results below $1,000 are rounded to the nearest $10.

[31] *See* Section III.C.8. "Bid Withdrawal," below.

[32] *See* note 30 (concerning rounding), above.

that placed the provisionally winning bid. If any bids are received on the license in a subsequent round, the provisionally winning bid again will be determined by the highest bid amount received for the license.

49. A provisionally winning bid will remain the provisionally winning bid until there is a higher bid on the license at the close of a subsequent round, unless the provisionally winning bid is withdrawn. Bidders are reminded that provisionally winning bids count toward activity for purposes of the activity rule.[33]

7. Bid Removal

50. For Auction 87, the Bureau proposes and seeks comment on the following bid removal procedures. Before the close of a bidding round, a bidder has the option of removing any bid placed in that round. By removing selected bids in the FCC Auction System, a bidder may effectively "undo" any of its bids placed within that round. In contrast to the bid withdrawal provisions described below, a bidder removing a bid placed in the same round is not subject to a withdrawal payment. Once a round closes, a bidder may no longer remove a bid.

8. Bid Withdrawal

51. A bidder may withdraw its provisionally winning bids using the "withdraw bids" function in the FCC Auction System. A bidder that withdraws its provisionally winning bid(s) is subject to the bid withdrawal payment provisions of the Commission rules.[34]

52. In the *Part 1 Third Report and Order*, the Commission explained that allowing bid withdrawals facilitates efficient aggregation of licenses and the pursuit of backup strategies as information becomes available during the course of an auction.[35] The Commission noted, however, that in some instances bidders may seek to withdraw bids for improper reasons. The Bureau, therefore, has discretion in managing the auction to limit the number of withdrawals to prevent any bidding abuses. The Commission stated that the Bureau should assertively exercise its discretion, consider limiting the number of rounds in which bidders may withdraw bids, and prevent bidders from bidding on a particular market if the Bureau finds that a bidder is abusing the Commission's bid withdrawal procedures.[36]

53. For Auction 87, we propose to limit each bidder to withdrawing provisionally winning bids in only one round during the course of the auction. To permit a bidder to withdraw bids in more than one round may encourage insincere bidding or the use of withdrawals for anti-competitive purposes. The round in which withdrawals may be used will be at the bidder's discretion, and there is no limit on the number of provisionally winning bids that may be withdrawn during that round. Withdrawals must be in accordance with the Commission's rules, including the bid withdrawal payment provisions specified in section 1.2104(g).[37] The Bureau seeks comment on these bid withdrawal procedures. If commenters believe that each bidder should be allowed to withdraw provisionally winning bids in more than one round during the course of the auction, or should not be permitted to withdraw any bids, they should state how many bid withdrawal rounds they seek and explain what specific factors lead them to that conclusion.

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[33] *See* Section III.C.2. "Activity Rule," above.

[34] 47 C.F.R. §§ 1.2104(g) and 1.2109.

[35] *Part 1 Third Report and Order*, 13 FCC Rcd at 459-60 ¶ 150.

[36] *Id*.

[37] *See* 47 C.F.R. § 1.2104(g).

D. Post-Auction Procedures

1. Establishing the Interim Withdrawal Payment Percentage

54. We seek comment on the appropriate percentage of a withdrawn bid that should be assessed as an interim withdrawal payment in the event that a final withdrawal payment cannot be determined at the close of the auction. In general, the Commission's rules provide that a bidder that withdraws a bid during an auction is subject to a withdrawal payment equal to the difference between the amount of the withdrawn bid and the amount of the winning bid in the same or subsequent auction(s).[38] If a bid is withdrawn and no subsequent higher bid is placed and/or the license is not won in the same auction, the final withdrawal payment cannot be calculated until after the close of a subsequent auction in which a higher bid for the license (or the equivalent to the license) is placed or the license is won.[39] When that final payment cannot yet be calculated, the bidder responsible for the withdrawn bid is assessed an interim bid withdrawal payment, which will be applied toward any final bid withdrawal payment that is ultimately assessed.[40] Section 1.2104(g)(1) of the Commission rules requires that the percentage of the withdrawn bid to be assessed as an interim bid withdrawal payment be between three percent and twenty percent and that it be set in advance of the auction.[41]

55. The Commission has determined that the level of the interim withdrawal payment in a particular auction will be based on the nature of the service and the inventory of the licenses being offered.[42] The Commission has noted that it may impose a higher interim withdrawal payment percentage to deter the anti-competitive use of withdrawals when, for example, bidders likely will not need to aggregate the licenses being offered in the auction, such as when few licenses are offered that are on adjacent frequencies or in adjacent areas, or when there are few synergies to be captured by combining licenses.[43]

56. With respect to the licenses being offered in Auction 87, the service rules permit a variety of fixed, mobile, and paging services, though the opportunities for combining licenses on adjacent frequencies or in adjacent areas are more limited than has been the case in previous auctions of paging licenses. Balancing the potential need for bidders to use withdrawals to avoid winning incomplete combinations of licenses with the Bureau's interest in deterring undesirable strategic use of withdrawals, the Bureau proposes a percentage below the maximum twenty percent permitted under the current rules but above the three percent previously provided by the Commission's rules. Specifically, the Bureau proposes to establish an interim bid withdrawal payment of ten percent of the withdrawn bid for this auction. The Bureau seeks comment on this proposal.

2. Establishing the Additional Default Payment Percentage

57. Any winning bidder that, after the close of an auction, defaults – by, for example, failing to remit the required down payment within the prescribed period of time, failing to submit a timely long-form application, or failing to make full payment – or is otherwise disqualified is liable for a default

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[38] *See* 47 C.F.R. § 1.2104(g)(1). The withdrawal payment amount is deducted from any upfront payments or down payments that the withdrawing bidder has deposited with the Commission. No withdrawal payment is assessed for a withdrawn bid if either the subsequent winning bid or any of the intervening subsequent withdrawn bids equals or exceeds that withdrawn bid. *Id.*

[39] *Id*.

[40] *Id.*

[41] *See id.*, as amended by Implementation of the Commercial Spectrum Enhancement Act and Modernization of the Commission's Competitive Bidding Rules and Procedures, WT Docket No. 05-211, *Report and Order*, FCC 06-4, 21 FCC Rcd 891, 903 ¶ 30 (2006) ("*CSEA/Part 1 Report and Order*").

[42] *See CSEA/Part 1 Report and Order*, 21 FCC Rcd at 903-04 ¶ 31.

[43] *See id.* at 904 n.57.

payment under section 1.2104(g)(2) of the Commission's rules.[44] This payment consists of a deficiency payment, equal to the difference between the amount of the bidder's bid and the amount of the winning bid the next time a license covering the same spectrum is won in an auction, plus an additional payment equal to a percentage of the defaulter's bid or of the subsequent winning bid, whichever is less.

58. Under section 1.2104(g)(2), the Commission will, in advance of each auction without combinatorial or package bidding, establish an additional default payment for that auction of three percent up to a maximum of twenty percent.[45] The level of this payment in each case will be based on the nature of the service and the inventory of the licenses being offered.[46]

59. For Auction 87, the Bureau proposes to establish an additional default payment of ten percent. As noted in the *CSEA/Part 1 Report and Order*, defaults weaken the integrity of the auction process and impede the deployment of service to the public, and an additional default payment of more than three percent will be more effective in deterring defaults. At the same time, the Bureau does not believe the detrimental effects of any defaults in Auction 87 are likely to be unusually great. The Bureau seeks comment on this proposal.

IV. COMMENTS AND EX PARTE RULES

60. Comments are due on or before December 21, 2009, and reply comments are due on or before January 7, 2010. All filings related to the auction of these Paging licenses (Auction 87) should refer to AU Docket No. 09-205. Comments may be submitted using the Commission's Electronic Comment Filing System ("ECFS") or by filing paper copies.[47] The Bureau strongly encourages interested parties to file comments electronically, and requests submission of a copy via the Auction 87 e-mail box (auction87@fcc.gov).

61. Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS at http://www.fcc.gov/cgb/ecfs/. Filers should follow the instructions provided on the website for submitting comments. In completing the transmittal screen, filers should include their full name, U.S. Postal Service mailing address, and AU Docket No. 09-205. Parties may also submit an electronic comment by Internet e-mail. To get filing instructions, filers should send an e-mail to ecfs@fcc.gov, and include the following words in the body of the message, "get form." A sample form and directions will be sent in response.

62. Paper Filers: Parties who choose to file by paper must file an original and four copies of each filing. Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail (although we continue to experience delays in receiving U.S. Postal Service mail). All filings must be addressed to the Commission's Secretary Attn: WTB/ASAD, Office of the Secretary, Federal Communications Commission, and should reference AU Docket No. 09-205.

- The Commission's contractor will receive hand-delivered or messenger-delivered paper filings for the Commission's Secretary at 236 Massachusetts Avenue, NE, Suite 110, Washington, DC 20002. The filing hours at this location are 8:00 a.m. to 7:00 p.m. Eastern Time (ET). All hand deliveries must be held together with rubber bands or fasteners. Any envelopes must be disposed of before entering the building.

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[44] 47 C.F.R. § 1.2104(g)(2).

[45] *Id*.

[46] *See CSEA/Part 1 Report and Order*, 21 FCC Rcd at 903-04 ¶¶ 30-31.

[47] *See* Electronic Filing of Documents in Rulemaking Proceedings, GC Docket No. 97-113, *Report and Order*, FCC 98-56, 13 FCC Rcd 11,322 (1998).

- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.
- U.S. Postal Service first-class, Express, and Priority mail should be addressed to 445 12th Street, SW, Washington DC 20554.

63. Auction 87 E-mail Box: The Bureau also requests that a copy of all comments and reply comments be submitted electronically to the following address: auction87@fcc.gov.

64. Copies of comments and reply comments will be available for public inspection between 8:00 a.m. and 4:30 p.m. ET Monday through Thursday or 8:00 a.m. to 11:30 a.m. ET on Fridays in the FCC Reference Information Center, Room CY-A257, 445 12th Street, SW, Washington, DC 20554, and will also be accessible through the search function on the ECFS web page at http://www.fcc.gov/cgb/ecfs/.

65. This proceeding has been designated as a "permit-but-disclose" proceeding in accordance with the Commission's ex parte rules.[48] Persons making oral ex parte presentations are reminded that memoranda summarizing the presentations must contain summaries of the substance of the presentations and not merely a listing of the subjects discussed. More than a one or two sentence description of the views and arguments presented is generally required. Other rules pertaining to oral and written ex parte presentations in permit-but-disclose proceedings are set forth in section 1.1206(b) of the Commission's rules.[49]

V. CONTACTS

66. For further information concerning this proceeding, contact the Wireless Telecommunications Bureau, as listed below:

Mobility Division, Wireless Telecommunications Bureau

For paging service rule questions: Michael Connelly (legal) or Melvin Spann (technical), at (202) 418-0620

Auctions and Spectrum Access Division, Wireless Telecommunications Bureau

For general auction questions: Roy Knowles or Barbara Sibert at (717) 338-2868
For auctions legal questions: Scott Mackoul at (202) 418-0660

67. To request materials in accessible formats (Braille, large print, electronic files, audio format) for people with disabilities, send an e-mail to fcc504@fcc.gov or call the Consumer and Governmental Affairs Bureau at (202) 418-0530 or (202) 418-0432 (TTY).

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[48] 47 C.F.R. §§ 1.1200(a), 1.1206.

[49] 47 C.F.R. § 1.1206(b).

DA 09-2416
ATTACHMENT A

Summary of Licenses to Be Offered in Auction 87 *

License Band	Totals By Frequency Band			
	Number of Licenses	Bidding Units	Upfront Payments	Minimum Opening Bids
Lower Bands				
35 MHz	1,955	977,500	$977,500	$977,500
43 MHz	2,575	1,287,500	$1,287,500	$1,287,500
152 and 158 MHz Paired	1,210	605,000	$605,000	$605,000
152 and 158 MHz Unpaired	413	206,500	$206,500	$206,500
454 and 459 MHz Paired	1,599	799,500	$799,500	$799,500
Total Lower Bands	7,752	3,876,000	$3,876,000	$3,876,000
Upper Bands				
929 MHz	449	224,500	$224,500	$224,500
931 MHz	1,402	701,000	$701,000	$701,000
Total Upper Bands	1,851	925,500	$925,500	$925,500
Total Lower and Upper Paging Bands	9,603	4,801,500	$4,801,500	$4,801,500

* Due to the large number of licenses in Auction 87, the complete list of licenses available for this auction will be provided in electronic format only, available as separate "Attachment A" files at http://wireless.fcc.gov/auctions/87/.

A paper copy of the complete list of licenses and any other documents relating to Auction 87 may be purchased from the Commission's duplicating contractor, Best Copy and Printing, Inc. ("BCPI"), 445 12th Street, SW, Room CY-B402, Washington, DC 20554, 800-378-3160 or at http://www.bcpiweb.com.

DA 09-2416
ATTACHMENT B

Block/Frequency Cross-Reference List

Below are tables containing block and frequency information for the lower paging bands (35-36 MHz, 43-44 MHz, 152-159 MHz, 454-460 MHz) and the upper paging bands (929-931 MHz). For Auction 87, licenses are not available in every block listed in these tables. See Attachment A to this Public Notice for more information about the licenses to be offered in Auction 87.

35 MHz Lower Bands Unpaired Paging Channels

Block (License Suffix)	Frequency	Block (License Suffix)	Frequency	Block (License Suffix)	Frequency	Block (License Suffix)	Frequency
CA	35.19 - 35.21	CE	35.29 - 35.31	CI	35.45 - 35.47	CM	35.57 - 35.59
CB	35.21 - 35.23	CF	35.33 - 35.35	CJ	35.49 - 35.51	CN	35.59 - 35.61
CC	35.23 - 35.25	CG	35.37 - 35.39	CK	35.53 - 35.55	CO	35.61- 35.63
CD	35.25 - 35.27	CH	35.41- 35.43	CL	35.55 - 35.57	CP	35.65 - 35.67

43 MHz Lower Bands Unpaired Paging Channels

Block (License Suffix)	Frequency	Block (License Suffix)	Frequency	Block (License Suffix)	Frequency	Block (License Suffix)	Frequency
DA	43.19 - 43.21	DE	43.29 - 43.31	DI	43.45 - 43.47	DM	43.57 - 43.59
DB	43.21 - 43.23	DF	43.33 - 43.35	DJ	43.49 - 43.51	DN	43.59 - 43.61
DC	43.23 - 43.25	DG	43.37 - 43.39	DK	43.53 - 43.55	DO	43.61 - 43.63
DD	43.25 - 43.27	DH	43.41 - 43.43	DL	43.55 - 43.57	DP	43.65 - 43.67

152 MHz and 158 MHz Lower Bands Unpaired Paging Channels

Block (License Suffix)	Frequency	Block (License Suffix)	Frequency
EA	152.230 - 152.250	EC	158.090 - 158.110
EB	152.830 - 152.850	ED	158.690 - 158.710

152 and 158 MHz Lower Bands Paired Paging Channels

Block (License Suffix)	Frequency	Block (License Suffix)	Frequency
FA	152.015-152.045 / 158.475-158.505	FJ	152.555-152.585 / 157.815-157.845
FB	152.045-152.075 / 158.505-158.535	FK	152.585-152.615 / 157.845-157.875
FC	152.075-152.105 / 158.535-158.565	FL	152.615-152.645 / 157.875-157.905
FD	152.105-152.135 / 158.565-158.595	FM	152.645-152.675 / 157.905-157.935
FE	152.135-152.165 / 158.595-158.625	FN	152.675-152.705 / 157.935-157.965
FF	152.165-152.195 / 158.625-158.655	FO	152.705-152.735 / 157.965-157.995
FG	152.195-152.225 / 158.655-158.685	FP	152.735-152.765 / 157.995-158.025
FH	152.495-152.525 / 157.755-157.785	FQ	152.765-152.795 / 158.025-158.055
FI	152.525-152.555 / 157.785-157.815	FR	152.795-152.825 / 158.055-158.085

454 and 459 MHz Lower Bands Paired Paging Channels

Block (License Suffix)	Frequency	Block (License Suffix)	Frequency
GA	454.0125-454.0375 / 459.0125-459.0375	GN	454.3375-454.3625 / 459.3375-459.3625
GB	454.0375-454.0625 / 459.0375-459.0625	GO	454.3625-454.3875 / 459.3625-459.3875
GC	454.0625-454.0875 / 459.0625-459.0875	GP	454.3875-454.4125 / 459.3875-459.4125
GD	454.0875-454.1125 / 459.0875-459.1125	GQ	454.4125-454.4375 / 459.4125-459.4375
GE	454.1125-454.1375 / 459.1125-459.1375	GR	454.4375-454.4625 / 459.4375-459.4625
GF	454.1375-454.1625 / 459.1375-459.1625	GS	454.4625-454.4875 / 459.4625-459.4875
GG	454.1625-454.1875 / 459.1625-459.1875	GT	454.4875-454.5125 / 459.4875-459-5125
GH	454.1875-454.2125 / 459.1875-459.2125	GU	454.5125-454.5375 / 459.5125-459.5375
GI	454.2125-454.2375 / 459.2125-459.2375	GV	454.5375-454.5625 / 459.5375-459.5625
GJ	454.2375-454.2625 / 459.2375-459.2625	GW	454.5625-454.5875 / 459.5625-459.5875
GK	454.2625-454.2875 / 459.2625-459.2875	GX	454.5875-454.6125 / 459.5875-459.6125
GL	454.2875-454.3125 / 459.2875-459.3125	GY	454.6125-454.6375 / 459.6125-459.6375
GM	454.3125-454.3375 / 459.3125-459.3375	GZ	454.6375-454.6625 / 459.6375-459.6625

929-931 MHz Upper Bands Paging Channels

Block (License Suffix)	Frequency	Block (License Suffix)	Frequency	Block (License Suffix)	Frequency	Block (License Suffix)	Frequency
A	929.0125	AA	931.0125	AN	931.3375	BA	931.6625
B	929.1125	AB	931.0375	AO	931.3625	BB	931.6875
C	929.2375	AC	931.0625	AP	931.3875	BC	931.7125
D	929.3125	AD	931.0875	AQ	931.4125	BD	931.7375
E	929.3875	AE	931.1125	AR	931.4375	BE	931.7625
F	929.4375	AF	931.1375	AS	931.4625	BF	931.7875
G	929.4625	AG	931.1625	AT	931.4875	BG	931.8125
H	929.6375	AH	931.1875	AU	931.5125	BH	931.8375
I	929.6875	AI	931.2125	AV	931.5375	BI	931.8625
J	929.7875	AJ	931.2375	AW	931.5625	BJ	931.9625
K	929.9125	AK	931.2625	AX	931.5875	BK	931.9875
L	929.9625	AL	931.2875	AY	931.6125		
		AM	931.3125	AZ	931.6375		

Each frequency listed in this table is the center frequency of the 20 kHz block.