



# PUBLIC NOTICE

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DA 97-1934  
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## FCC Announces Changes to Auction Procedures for the 800 MHz SMR Auction (Auction No. 16)

Report No. AUC-16-C (Auction No. 16)

### I. Clarification to FCC Form 175 Filing Instructions

The Commission has made two modifications to the FCC Form 175 filing information instructions for the 800 MHz Specialized Mobile Radio auctions, which the Commission released August 6, 1997.<sup>1</sup> First, we have changed the date on which applicants may begin to file electronically from September 2, 1997<sup>2</sup> to September 8, 1997. All information required to file FCC Form 175 electronically will become available over both the Internet and the FCC's Bulletin Board System on September 8, 1997. Second, we have modified the instructions in Attachment B, Item 7 of the August 6th Public Notice to **require applicants to enter their nine-digit Taxpayer Identification Number (TIN) or their Social Security Number (SSN)**. Applicants no longer need to add the prefix of "0" to create the ten-digit FCC Account Number, as we had instructed in the August 6th Public Notice.<sup>3</sup> Applicants using the Remote FCC Form 175 Application should enter the nine-digit TIN or SSN on the Account Verification Screen. Applicants that submit their applications (FCC Form 175) manually must enter the nine-digit TIN or SSN in Item #7. When an application is successfully submitted, an FCC Account Number will be generated by the FCC Auctions System for future use by qualified bidders in accessing our Remote Bidding System Software. **Please note that this change also applies to Item #1 of the FCC Form 159 which is labeled "FCC Account Number."**

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<sup>1</sup> See Public Notice, "Auction of 800 MHz Specialized Mobile Radio Service Licenses," DA 97-1672 (rel. August 6, 1997) ("August 6th Public Notice").

<sup>2</sup> *Id.* at 9-10.

<sup>3</sup> *Id.*, Attachment B, B-1 and B-2.

## **II. "Click Box" Bidding**

In an effort to speed the auction process, the Commission has simplified the electronic auction bidding process by implementing a new feature--click box bidding. This feature frees bidders from having to type a bid amount on the Bid Submission screen. In prior auctions, the Bid Submission screen showed the Minimum Bid Accepted for each license and provided an entry field where bidders would type their bid for a license. In Auction No. 16, the screen will display a "Click on Check Box to Bid" column that provides a check box for each Minimum Bid Accepted amount in place of the bid entry field. To place a bid at the minimum acceptable bid amount for a license, a bidder simply must click the appropriate box to put a check mark in it.

Once the click box is checked, the Bid Submission screen updates the Group Total (total dollars bid), Bid-Units, and Activity amounts, as if a bid amount had been typed. However, by using the check boxes, there is no risk of mistyping bids. Other auction screens are unchanged, as are the reports.

## **III. Withdrawals**

**The FCC will limit the number of rounds in which bidders may place withdrawals in Auction No. 16.** Each bidder will be allowed **2** rounds in which it may withdraw bids. These rounds will be at the bidder's discretion and there will be no limit on the number of bids that may be withdrawn in either of these rounds. Withdrawals will still be subject to the bid withdrawal payments specified in 47 C.F.R. § 90.905.

## **IV. Bid Increments**

### **A. Exponential Smoothing**

The Commission will use its exponential smoothing methodology to calculate minimum bid increments in Auction 16. The exponential smoothing formula calculates the bid increment based on a weighted average of the activity received on each license in the current and all previous rounds. This methodology will tailor the bid increment for each license based on activity rather than setting a global increment for all licenses.

For every license that receives a bid, the bid increment for the next round for that license will be established as the greater of \$0.25 per bidding unit for each license or a percentage increment that is determined using the exponential smoothing formula.

Using exponential smoothing, the calculation of the percentage bid increment for each license will be based on an activity index, which is calculated as the weighted average of the current activity and the activity index from the previous round. The activity index at the start of the auction (round 0) will be set at 0. The current activity index is equal to a weighting factor times the number of new bids received on the license in the current bidding period plus one minus the weighting factor times the activity index from the previous round. The activity index is then

used to calculate a percentage increment by multiplying a minimum percentage increment by one plus the activity index with that result being subject to a maximum percentage increment. The Commission will initially set the weighting factor at 0.5, the minimum percentage increment at 0.05, and the maximum percentage increment at 0.15. The mathematical formulas can be found in the Equations section, following.

**B. Equations**

$$A_i = (C * B_i) + ((1-C) * A_{i-1})$$

$$I_i = \text{smaller of } ((1 + A_i) * N) \text{ and } M$$

where,

$A_i$  = activity index for the current round (round i)

C = activity weight factor

$B_i$  = number of bids in the current round (round i)

$A_{i-1}$  = activity index from previous round (round i-1),  $A_0$  is 0

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

N = minimum percentage increment

M = maximum percentage increment

Under the exponential smoothing methodology, once a bid has been received on a license, the minimum acceptable bid for that license in the following round will be the new high bid plus the greater of either the dollar amount associated with the percentage increment (variable I from above times the high bid) or the absolute increment (a fixed dollar amount per bidding unit for each license, *e.g.*, \$0.25 per bidding unit).

**C. Example**

License 1 (800,000 bidding units)

C=0.5, N = 0.05, M = 0.15, Absolute bid increment = \$0.25 per bidding unit

Round 1 (2 new bids, high bid = \$1,000,000)

1. Calculation of percentage increment using exponential smoothing:

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

$$I_1 = (1 + 1) * 0.05 = 0.1$$

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

$$0.1 * \$1,000,000 = \mathbf{\$100,000}$$

3. Dollar increment using the absolute increment

$$\$0.25 * 800,000 \text{ bidding units} = \mathbf{\$200,000}$$

4. Minimum bid increment: greater of percentage and absolute = **\$200,000**

**Round 2 (3 new bids, high bid = 2,000,000)**

1. Calculation of percentage increment using exponential smoothing:

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

$$I_2 = (1 + 2) * 0.05 = 0.15$$

2. Dollar increment using the percentage increment ( $I_2$  from above)

$$0.15 * \$2,000,000 = \mathbf{\$300,000}$$

3. Dollar increment using the absolute increment

$$\$0.25 \times 800,000 \text{ bidding units} = \mathbf{\$200,000}$$

4. Minimum bid increment: greater of percentage and absolute = **\$300,000**

**Round 3 (1 new bid, high bid = 2,300,000)**

1. Calculation of percentage increment using exponential smoothing:

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

$$I_3 = (1 + 1.5) * 0.05 = 0.125$$

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

$$0.125 * \$2,300,000 = \mathbf{\$287,500}$$

3. Dollar increment using the absolute increment

$$\$0.25 \times 800,000 \text{ bidding units} = \mathbf{\$200,000}$$

4. Minimum bid increment: greater of percentage and absolute = **\$287,500**

For further information concerning this Public Notice, contact Alice Elder or Brett Tarnutzer at the Auctions and Industry Analysis Division, Wireless Telecommunications Bureau at (202) 418-0660. For auction information in general, call 1-888-225-5322 (press option #2 at the prompt).

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