

### Spectrum Auction Process and Integrated Spectrum Auction System

#### Auction No. 65 800 MHz Air-Ground Radiotelephone Service

Jeff Crooks, Auctions Analyst jeff.crooks@fcc.gov March 14, 2006



### Disclaimer

Nothing herein is intended to supersede any provision of the Commission's rules or public notices. These slides should not be used as a substitute for a prospective applicant's review of the Commission's relevant orders, rules, and public notices. Prospective applicants must familiarize themselves thoroughly and remain current with the Commission's rules relating to 800 MHz Air-Ground Radiotelephone Service, rules relating to application and auction procedures, and the procedures, terms and conditions contained in the Auction No. 65 public notices.



### **Questions?**

If you are viewing this presentation live over the web, please feel free to e-mail your questions to...

### Auction65@fcc.gov





# This symbol indicates a common question slide



### Agenda

#### **Overview of Auction Design and Terminology**

# Discussion of Auction No. 65 Rules and Procedures

Presentation and Hands-on Demonstration of the FCC's Integrated Spectrum Auction System



# (See DA 06-299, Section IV)

A variation of the Simultaneous Multiple Round (SMR) auction format

- **Simultaneous** All licenses are offered at the same time.
- Multiple Round There are multiple discrete bidding rounds during which bidding is confidential.





How many rounds are conducted and when does bidding stop?

- Bidding continues until there is one round in which nothing happens.
  - No new bids or proactive waivers.

The number of rounds varies in each auction. There is no predetermined number.



Auction Design (continued)

Special features for Auction No. 65
 Licenses will be awarded in only one of the three band plans

Two licenses in each band plan

A bidder can win only one license
 In each round, a bidder can be the provisional winner on only one license



### Auction Design (continued)

# Web-Based Bidding System Option to bid via Auction Bidder Line

#### Click-Box Bidding

 When placing a bid, a bidder selects from nine bid amounts in the bidding system.



### Auction Design (continued)

When a round ends, results are processed and made public.

- Provisionally winning bids (PWBs) announced
- Other bids, waivers made public



## Eligibility

(See DA 06-299, Section III.D.3)

#### >An upfront payment establishes eligibility to bid

- In Auction 65, bidders must make an upfront payment of \$100,000 to participate
- This payment gives a bidder eligibility to bid on any or all of the licenses it selected on its Form 175



# Activity Requirements

(See DA 06-299, Sections IV.A.2-3)

Bidders generally must bid throughout the auction

 In each round, bidders must hold a PWB or place at least one new bid



# Activity and Eligibility

What if you do not meet the activity requirement?

One of two things will happen:

· You will use an activity rule waiver

#### ٥ſ

 You will lose the eligibility to place new bids in the auction



# Activity Rule Waivers

In Auction No. 65, bidders will be provided with three activity rule waivers

Use of an activity rule waiver preserves the bidder's eligibility to bid despite not meeting the activity requirement in the current round



# Activity Rule Waivers

- Waivers can be either applied proactively by the bidder or applied automatically by the FCC Auction System
  - Cannot "undo" a waiver once it is applied
- If a bidder does not meet the activity requirement and has already used its three waivers, it will lose its eligibility to place new bids
  - A bidder that has lost eligibility may still win a license bid on previously (more later)





### What if you change your mind?

 You can <u>remove</u> a bid you placed during the current round. If you place a bid during a round and then remove that bid <u>before the end of the</u> <u>round</u>, it's as if it never happened. (Sect.IV.B.6)

• You cannot withdraw a bid once the round in which it was placed has closed. (Sect.IV.B.6)



#### Auction Stopping Rule (See DA 06-299, Section IV.A.4)

Bidding continues until there is one round in which nothing happens.

> No new bids or proactive waivers.

• The Bureau retains the discretion to employ other versions of the stopping rule.



#### Bid Amounts (See DA 06-299, Sections IV.B.2-5)

Minimum opening bids are established prior to the auction
How much can you bid?
Any one of nine pre-determined amounts



# Bid Amounts (cont.)

- Acceptable bid amounts for the next round are calculated using license "prices"
  - For a license with a PWB, the "price" is the PW bid amount
  - For a license without a PWB, the "price" is the highest bid by a non-winning bidder



## Bid Amounts (cont.)

The minimum acceptable bid (first of nine amounts) for the next round is the "price" plus a 5% increment

 If there are no bids on a license, or no bids by a nonwinning bidder, the minimum acceptable bid is the minimum opening bid

The next eight bid amounts each increment the minimum acceptable bid by an additional 5%



## Bid Amounts (cont.)

Why use the highest bid by a non-winning bidder as the "price" ?
 It makes it harder for bidders to "bid up"

 It makes it narger for biggers to big up licenses they are not interested in winning

Note: Minimum acceptable bids may be lower than some bids from prior rounds



# **Provisionally Winning Bids**

> At the end of each round, bids in only one of the three band plans will be PWBs

#### PWBs are those bids that

- Yield the highest aggregate gross bid amount
- Do not assign both licenses to the same bidder



### Provisionally Winning Bids (cont.)

To determine new PWBs, the system considers new bids and old bids

- Bids from previous rounds, including non-provisionally winning bids, are considered
- Bids placed by bidders no longer eligible to bid can become PWBs
- All considered bids are assigned a new random number (for tie breaking) after each round with any new bids



### Placeholder

#### > simple example of how PWBs are calculated





License	Bidder	Bid
A	Company 2	\$4,500
Α	Company 1	\$3,500
Α	FCC	\$1,499
В	Company 3	\$3,500
В	Company 2	\$3,000
В	FCC	\$1,499
С	Company 3	\$4,000
С	FCC	\$2,799
D	Company 1	\$300
D	FCC	\$199
E	FCC	\$199
F	Company 3	\$4,000
F	FCC	\$2,799

Step 1: Find the largest bids for each license in the pair, but each bidder can have only one bid in the pair



License	Bidder	Bid
Α	Company 2	\$4,500
Α	Company 1	\$3,500
Α	FCC	\$1,499
В	Company 3	\$3,500
В	Company 2	\$3,000
В	FCC	\$1,499
С	Company 3	\$4,000
С	FCC	\$2,799
D	Company 1	\$300
D	FCC	\$199
E	FCC	\$199
F	Company 3	\$4,000
F	FCC	\$2,799



Where can I find this information?

The considered bids download file on the results tab contains all of the bids considered by the software when determining provisional winners.

Step 1: Find the largest bids for each license in the pair, but each bidder can have only one bid in the pair



License	Bidder	Bid
А	Company 2	\$4,500
А	Company 1	\$3,500
A	FCC	\$1,499
В	Company 3	\$3,500
В	Company 2	\$3,000
В	FCC	\$1,499
C	Company 3	\$4,000
С	FCC	\$2,799
D	Company 1	\$300
D	FCC	\$199
E	FCC	\$199
F	Company 3	\$4,000
F	FCC	\$2,799

Step 1: Find the largest bids for each license in the pair, but each bidder can have only one bid in the pair



License	Bidder	Bid	
А	Company 2	\$4,500	J
А	Company 1	\$3,500	
А	FCC	\$1,499	(A + B
В	Company 3	\$3,500	(\$4,500 + \$3,500 = \$8,000
В	Company 2	\$3,000	
В	FCC	\$1,499	J
С	Company 3	\$4,000	
С	FCC	\$2,799	C + D
D	Company 1	\$300	(\$4,000 + \$300 = \$4,300
D	FCC	\$199	
E	FCC	\$199	E + F
F	Company 3	\$4,000	
F	FCC	\$2,799	\$199 + \$4,000 = \$4,199

Step 2: Add the bids for each pair and choose the pair with the largest sum.

### **FCC** Example : Determining Provisionally Winning Bids (Determining "Prices" for Calculating the Minimum Acceptable Bid)

License	Bidder	Bid	
А	Company 2	\$4,500 (PWB)	J
А	Company 1	\$3,500	
А	FCC	\$1,499	( A + B
В	Company 3	\$3,500 (PWB)	<b>\$4,500 + \$3,500 = \$8,000</b>
В	Company 2	\$3,000	
В	FCC	\$1,499	
С	Company 3	\$4,000	
С	FCC	\$2,799	C + D
D	Company 1	\$300	(\$4,000 + \$300 = \$4,300
D	FCC	\$199	
E	FCC	\$199	
F	Company 3	\$4,000	
F	FCC	\$2,799	\$199 + \$4,000 = \$4,199

Step 2: Add the bids for each pair and choose the pair with the largest sum.



License	Bidder	Bid	
А	Company 2	\$4,500 (PWB)	A Provi
А	Company 1	\$3,500	"pric
А	FCC	\$1,499	
В	Company 3	\$3,500 (PWB)	
В	Company 2	\$3,000	
В	FCC	\$1,499	
С	Company 3	\$4,000	
С	FCC	\$2,799	
D	Company 1	\$300	
D	FCC	\$199	
E	FCC	\$199	
F	Company 3	\$4,000	
F	FCC	\$2,799	

Provisionally Winning Bid 'price"=\$4,500



License	Bidder	Bid	
Α	Company 2	\$4,500 (PWB)	
Α	Company 1	\$3,500	
A	FCC	\$1,499	Provisionally Winning
В	Company 3	\$3,500 (PWB)	$\langle B  $
В	Company 2	\$3,000	<b>₩ "price"=\$3,500</b>
В	FCC	\$1,499	
С	Company 3	\$4,000	
C	FCC	\$2,799	
D	Company 1	\$300	
D	FCC	\$199	
E	FCC	\$199	
F	Company 3	\$4,000	
F	FCC	\$2,799	

g Bid



License	Bidder	Bid	
А	Company 2	\$4,500 (PWB)	
Α	Company 1	\$3,500	
Α	FCC	\$1,499	
В	Company 3	\$3,500 (PWB)	
В	Company 2	\$3,000	
В	FCC	\$1,499	
С	Company 3	\$4,000	Λ
С	FCC	\$2,799	$\langle ]$
D	Company 1	\$300	N
D	FCC	\$199	
E	FCC	\$199	
F	Company 3	\$4,000	
F	FCC	\$2,799	

Not a Provisionally Winning Bid, but the highest bid (\$4,000) is by a Provisionally Winning Bidder and the remaining bid is an FCC bid, so no "price" can be calculated and the Minimum Acceptable Bid will be set to the Minimum Opening Bid.



### Example : Determining "Prices"

(Determining "Prices" for Calculating the Minimum Acceptable Bid)

License	Bidder	Bid	
А	Company 2	\$4,500 (PWB)	
A	Company 1	\$3,500	
A	FCC	\$1,499	
В	Company 3	\$3,500 (PWB)	
В	Company 2	\$3,000	
В	FCC	\$1,499	
С	Company 3	\$4,000	
С	FCC	\$2,799	Λ
D	Company 1	\$300	$\langle $
D	FCC	\$199	N
E	FCC	\$199	
F	Company 3	\$4,000	
F	FCC	\$2,799	

Not a Provisionally Winning Bid and Company 1 is not a Provisionally Winning Bidder, so the "price" = \$300.



#### Example : Determining "Prices"

(Determining "Prices" for Calculating the Minimum Acceptable Bid)

License	Bidder	Bid	
А	Company 2	\$4,500 (PWB)	
А	Company 1	\$3,500	
А	FCC	\$1,499	
В	Company 3	\$3,500 (PWB)	
В	Company 2	\$3,000	
В	FCC	\$1,499	
С	Company 3	\$4,000	
С	FCC	\$2,799	
D	Company 1	\$300	
D	FCC	\$199	Λ
E	FCC	\$199	< E
F	Company 3	\$4,000	
F	FCC	\$2,799	

The only bid is an FCC bid, so no "price" can be calculated and the Minimum Acceptable Bid will be set to the Minimum Opening Bid.



License	Bidder	Bid
Α	Company 2	\$4,500 (PWB)
Α	Company 1	\$3,500
Α	FCC	\$1,499
В	Company 3	\$3,500 (PWB)
В	Company 2	\$3,000
В	FCC	\$1,499
С	Company 3	\$4,000
С	FCC	\$2,799
D	Company 1	\$300
D	FCC	\$199
E	FCC	\$199
F	Company 3	\$4,000
F	FCC	\$2,799

Not a Provisionally Winning Bid, but the highest bid (\$4,000) is by a Provisionally Winning Bidder and the remaining bid is an FCC bid, so no "price" can be calculated and the Minimum Acceptable Bid will be set to the Minimum Opening Bid.



Example : Setting Minimum Acceptable Bid Amounts

#### > Minimum Acceptable Bid Amount

- "Price" + 5%
  - Result is rounded using FCC rounding rules
- If the "price" cannot be calculated because of an FCC bid, the Minimum Acceptable Bid Amount will be set to the Minimum Opening Bid Amount.



### The SecurID Card



Multiple cards sent to all bidders Random number refreshes every 60 seconds Countdown indicator Please return to the FCC for recycling



### To Ensure a Positive Auction Experience

Do your homework.

Read all public notices related to this auction.

Participate in the mock auction.

- Test backup strategies and activate <u>all</u> SecurID cards.
- Use Auction Bidder Line to ask "what if" questions.

#### Check for and read all announcements to stay informed.

- Bidding schedule
- Auction parameter changes

#### **Bid Early!**

• Print round summaries.