AUCTION EVENT

The first round of the auction will begin on March 23, 1999. The initial round schedule will be announced in a Public Notice listing the qualified bidders, to be released approximately 10 days before the start of the auction.

A. Auction Structure

(1) Simultaneous Multiple Round Auction

The 356 Broadband PCS licenses will be awarded through a single, simultaneous multiple round auction. Using this auction format all 356 licenses will be auctioned Simultaneously using a number of sequential bidding rounds. In each round of the auction, bidders will be able to place bids on all licenses specified on their FCC Form 175 up to their maximum eligibility level as determined by their upfront payment.

At the end of each round, the highest bidder for each license will be declared and its bid will be known as the standing high bid on that license. In the following round, bidders will be able to submit a bid higher than the current standing high bid on any of the licenses for which they are eligible to bid. Bids are submitted in multiples, ranging from 1 to 9, of the minimum bid increment set for each license. This minimum increment is typically computed as a percentage of the current standing high bid on a license and the percentage varies with the level of bidding activity on that particular license. Unless otherwise announced, the auction will progress in this manner until there is a round in which there are no new bids placed, bids withdrawn or proactive waivers used. After such a round, under the simultaneous stopping rule, the auction will end. The rules detailed below will explain each piece of the auction including eligibility rules, activity requirements and activity requirement waivers, bidding procedures including bid submission, bid removal and bid withdrawal, as well as technical details regarding the calculation of minimum bid increment levels.

(2) Maximum Eligibility and Activity Rules

The amount of the upfront payment submitted by a bidder determines the initial maximum eligibility (in bidding units) for each bidder. Note again that upfront payments are not attributed to specific licenses, but instead will be translated into bidding units to define a bidder's initial maximum eligibility. The total upfront payment defines the maximum number of bidding units on which the applicant will initially be permitted to bid. (As stated, "former defaulters" must pay a higher upfront payment amount as outlined in TAB A.) There is no provision for increasing a bidder's maximum eligibility during the course of an auction, as described under "Auction Stages" as set forth in this TAB.

To ensure that the auction closes within a reasonable period of time, an activity rule requires bidders to bid actively throughout the auction, rather than wait until the end before participate. Bidders are required to be active on a specific percentage of their maximum eligibility during each round of the auction.

A bidder is considered active on a license in the current round if it is either the high bidder at the end of the previous bidding round and does not withdraw the high bid in the current round, or if it submits an acceptable bid in the current round (see "Minimum Accepted Bids" in this TAB). A bidder's activity level in a round is the sum of the bidding units associated with licenses on which the bidder is active. The minimum required activity level is expressed as a percentage of the bidder's maximum bidding eligibility, and increases as the auction progresses.

(3) Activity Rule Waivers and Reducing Eligibility

Each bidder will be provided five activity rule waivers that may be used in any round during the course of the auction. Use of an activity rule waiver preserves the bidder's current bidding eligibility despite activity below the required minimum level. An activity rule waiver applies to an entire round of bidding and not to a particular license.

The FCC auction system assumes that bidders with insufficient activity would prefer to use an activity rule waiver (if available) rather than lose bidding eligibility. Therefore, the system will automatically apply a waiver (known as an "automatic waiver") at the end of any round a bidder's activity level is below the minimum required unless: (1) no activity rule waivers are available; or (2) the bidder overrides the automatic application of a waiver by reducing eligibility, thereby meeting the minimum requirements.

A bidder with insufficient activity that wants to reduce its bidding eligibility rather than use an activity rule waiver must affirmatively override the automatic waiver mechanism during the round by using the reduce eligibility function in the software. In this case, the bidder's eligibility is permanently reduced to bring the bidder into compliance with the activity rules as described in "Auction Stages" in this TAB. Once eligibility has been reduced, a bidder will not be permitted to regain it.

Finally, a bidder may proactively use an activity rule waiver to keep the auction open without placing a bid. If a bidder submits a proactive waiver (using the proactive waiver function in the bidding software) during a round in which no bids are submitted, the auction will remain open and the bidder's eligibility will be preserved. An automatic waiver invoked in a round in which there are no new valid bids or withdrawals will not keep the auction open.

(**4) Auction Stages**

The auction will be composed of three stages, which are each defined by an increasing activity rule. The FCC reserves the discretion to alter the activity percentages before and/or during the auction.

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

Stage Two: In each round of the second stage, a bidder desiring to maintain its current eligibility is required to be active on 90 percent of its current bidding eligibility. During Stage Two, reduced eligibility for the next round will be calculated by multiplying the current round activity by ten-ninths (10/9).

Stage Three: In each round of the third stage, a bidder desiring to maintain its current eligibility is required to be active on 98 percent of its current bidding eligibility. In this final stage, reduced eligibility for the next round will be calculated by multiplying the current round activity by fifty-fortyninths (50/49).

> **CAUTION:** Since activity requirements increase in each auction stage, bidders must carefully check their current activity during the bidding round of the first round following a stage transition. This is especially critical for bidders that have standing high bids and do not plan to submit new bids. In past auctions, some bidders have inadvertently lost bidding eligibility or used an activity rule waiver because they did not reverify their activity status at stage transitions. Bidders may check their activity against the required minimum activity level by using the bidding software's bidding module.

(5) Stage Transitions

The auction will start in Stage One, and under the FCC's general guidelines it will advance to the next stage when, in each of three consecutive rounds of bidding, the high bid has increased on 10 percent or less of the licenses being auctioned (as measured in bidding units). However, the Bureau will retain the discretion to regulate the pace of the auction by announcement. This determination will be based on a variety of measures of bidder activity, including, but not limited to, the auction activity level, the percentages of licenses (as measured in bidding units) on which there are new bids, the number of new bids, and the percentage increase in revenue.

(6) Auction Stopping Rules

Barring extraordinary circumstances, bidding will remain open for all licenses until the first round in which no new acceptable bids, proactive waivers, or withdrawals are received ("simultaneous stopping rule"). After the first such round, bidding closes simultaneously on all licenses. Further, the Bureau retains the discretion to impliment a modified stopping rule to close the auction in the first round in which no bidder submits a proactive waiver, a withdrawal, or a new bid on any license on which it is not the standing high bidder. Thus, under this modified stopping rule, absent any other bidding activity, a bidder placing a new bid on a license for which it is the standing high bidder would not keep the auction open.

The Bureau retains the discretion to override the simultaneous stopping rule and keep an auction open even if no new acceptable bids or proactive waivers are submitted, and no previous high bids are withdrawn. In this event, the effect will be the same as if a bidder had submitted a proactive waiver. The activity rule will apply as usual, and a bidder with insufficient activity will either lose bidding eligibility or use an activity rule waiver (if it has any left).

Further, in its discretion, the Bureau reserves the right to declare that the auction will end after a specified number of additional rounds ("special stopping rule"). If the FCC invokes this special stopping rule, it will accept bids in the specified final round(s) only for licenses on which the high bid increased in at least one of the preceding specified number of rounds. The FCC intends to exercise this option only in extreme circumstances, such as when the auction is proceeding very slowly, when there is minimal overall bidding activity, or when it appears likely that the auction will not close within a reasonable period of time. Before exercising this option, the FCC is likely to attempt to increase the pace of the auction by, for example, moving the auction into the next stage (where bidders would be required to maintain a higher level of bidding activity), increasing the number of bidding rounds per day, and/or increasing the amount of the minimum bid increments for the limited number of licenses where there is still a high level of bidding activity.

7) Auction Delay, Suspension, or Cancellation

By public notice or by announcement during the auction, the Bureau may delay, suspend or cancel the auction in the event of natural disaster, technical obstacle, evidence of an auction security breach, unlawful bidding activity, administrative or weather necessity, or for any other reason that affects the fair and competitive conduct of competitive bidding. In such cases, the Bureau, in its sole discretion, may elect to: resume the auction starting from the beginning of the current round; resume the auction starting from some previous round; or cancel the auction in its entirety. Network interruption may cause the Bureau to delay or suspend the auction. We emphasize that exercise of this authority is solely within the discretion of the Bureau, and its use is not intended to be a substitute for situations in which bidders may wish to apply their activity rule waivers.

B. Bidding Procedures

(1) Round Structure

The initial bidding schedule will be announced by public notice at least one week before the start of the auction, and will be included in the registration mailings to qualified bidders. The round structure for each bidding round contains a single bidding round followed by the release of the round results.

The FCC has discretion to change the bidding schedule to foster an auction pace that reasonably balances speed with the bidders' need to study round results and adjust their bidding strategies. The FCC may increase or decrease the amount of time for the bidding rounds and review periods, or the number of rounds per day, depending upon the bidding activity level and other factors.

(2) Reserve Price or Minimum Opening Bid

There are minimum opening bids for each of the licenses in Auction No. 22 that are reducible at the discretion of the Bureau. The levels will be set as follows:

(1) 30 MHz licenses	5 % of most recent net high bid for C block licenses in same BTA (rounded up to the next highest dollar)
(2) 15 MHz licenses	2.5 % of most recent net high bid for C block licenses in same BTA (rounded up to the next highest dollar)
(3) 10 MHz licenses	1.6 % of most recent net high bid for C block licenses in same BTA (rounded up to the next highest dollar)

The discretion to reduce minimum opening bids will be exercised sparingly and early in the auction, *i.e.*, before bidders lose all waivers and begin to lose eligibility. During the course of the auction, the Bureau will not entertain any bidder requests to reduce the minimum opening bid on specific licenses.

(3) Minimum Accepted Bids

Once there is a standing high bid on a license, a bid increment will be applied to that license to establish a minimum acceptable bid for the following round. For Auction No. 22, we will utilize, as described immediately below, an exponential smoothing methodology to calculate minimum bid increments. The Bureau retains the discretion to compute the minimum bid increment through other methodologies if it determines that circumstance so dictates.

Exponential Smoothing

The exponential smoothing formula calculates the bid increment for each license based on a weighted average of the activity received on each license in all previous rounds. This methodology will tailor the bid increment for each license based on activity, rather than setting a global increment for all licenses. For every license that receives a bid, the bid increment for the next round for that license will be established as a percentage increment that is determined by using the exponential smoothing formula.

The calculation of the percentage bid increment for each license in a given round is made at the end of the previous round. The computation is based on an activity index, which is calculated as the weighted average of the activity in that round and the activity index from the prior 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 round 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 0.1, and the maximum percentage increment at 0.2.

Equations

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

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+1 = percentage bid increment for the current round (round i +1)
N = minimum percentage increment
M = maximum percentage increment

Under the exponential smoothing methodology, once a bid has been received on a license, the minimum acceptable bid for that license in the following round will be the new high bid plus the dollar amount associated with the percentage increment (variable I_{i+1} from above times the high bid). This result will be rounded to the nearest thousand if it is over 10,000 or to the nearest hundred if it is under 10,000.

Examples

License 1
$C = 0.5$, $N = 0.1$, $M = 0.2$

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

1. Calculation of percentage increment for round 2 using exponential smoothing:
    $A_1 = (0.5 * 2) + (0.5 * 0) = 1$
    The smaller of $I_2 = (1 + 1) * 0.1 = 0.2$ or 0.2 (the maximum percentage increment)

2. Minimum bid increment for round 2 using the percentage increment (I_2 from above)
    $0.2 * \$1,000,000 = \$200,000$

3. Minimum acceptable bid for round 2 = 1,200,000

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

1. Calculation of percentage increment for round 3 using exponential smoothing:
    $A_2 = (0.5 * 3) + (0.5 * 1) = 2$
    The smaller of $I_3 = (1 + 2) * 0.1 = 0.3$ or 0.2 (the maximum percentage increment)

2. Minimum bid increment for round 3 using the percentage increment (I_3 from above)
    $0.2 * \$2,000,000 = \$400,000$

3. Minimum acceptable bid for round 3 = 2,400,000

Round 3 (1 new bid, high bid = 2,400,000)

1. Calculation of percentage increment for round 4 using exponential smoothing:
    $A_3 = (0.5 * 1) + (0.5 * 2) = 1.5$
    The smaller of $I_4 = (1 + 1.5) * 0.1 = 0.25$ or 0.2 (the maximum percentage
    increment)

2. Minimum bid increment for round 4 using the percentage increment (I_4 from above)
    $0.2 * \$2,400,000 = \$480,000$

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

(4) High Bids

Each bid will be date- and time-stamped when it is entered into the auctions system. In the event of tie bids, the Commission will identify the high bidder on the basis of the order in which bids are received by the Commission, starting with the earliest bid. The bidding software allows bidders to make multiple submissions in a round. As each bid is individually date and time-stamped according to when it was submitted, bids submitted

by a bidder earlier in a round will have an earlier date- and time-stamp than bids submitted later in a round.

(5) Bidding

During a bidding round, a bidder may submit bids for as many licenses for which it is eligible, as well as withdraw high bids from previous bidding rounds, remove bids placed in the same bidding round, or permanently reduce eligibility. Bidders also have the option of making multiple bid submissions and bid removals in each bidding round. If a bidder submits multiple bids for a single license in the same round, the system takes the last bid entered as that bidder's bid for the round, and the date- and time-stamp of that bid reflect the latest time the bid was submitted.

Please note that all bidding will take place either through the automated bidding software or by telephonic bidding. (Telephonic bid assistants are required to use a script when handling bids placed by telephone. Telephonic bidders are therefore reminded to allow sufficient time to bid, by placing their calls well in advance of the close of a round, because four to five minutes are necessary to complete a bid submission.) There will be no on-site bidding during Auction No. 22.

A bidder's ability to bid on specific licenses in the first round of the auction is determined by two factors: (1) the licenses applied for on FCC Form 175; and (2) the upfront payment amount deposited. The bid submission screens will be tailored for each bidder to include only those licenses for which the bidder applied on its FCC Form 175. A bidder also has the option to further tailor its bid submission screens to call up specified groups of licenses.

The bidding software requires each bidder to login to the FCC auction system during the bidding round using the FCC account number, bidder identification number, and the confidential security codes provided in the registration materials. Bidders are strongly encouraged to download and print bid confirmations **after** they submit their bids.

The bid entry screen of the Automated Auction System software for Auction No. 22 allows bidders to place multiple increment bids which provide bidders with the option to increase standing high bids from one to nine bid increments. A single bid increment is defined as the difference between the standing high bid and the minimum acceptable bid for a license.

To place a bid on a license, the bidder must enter a whole number between **1** and **9** in the bid increment multiplier (Bid Mult) field. This value will determine the amount of the bid (Amount Bid) by multiplying the bid increment multiplier by the bid increment and adding the result to the high bid amount according to the following formula:

Amount Bid = High Bid + (Bid Mult * Bid Increment)

Thus, bidders may place a bid that exceeds the standing high bid by between one and nine times the bid increment. For example, to bid the minimum acceptable bid, which is equal to one bid increment, a bidder will enter "1" in the bid increment multiplier column and press submit.

For any license on which the FCC is designated as the high bidder (*i.e.*, a license that has not yet received a bid in the auction or where the high bid was withdrawn and a new bid has not yet been placed), bidders will be limited to bidding only the minimum acceptable bid. In both of these cases no increment exists for the licenses, and bidders should enter "1" in the Bid Mult field. Note that any whole number between **1** and **9** entered in the multiplier column will result in a bid value at the minimum acceptable bid amount. Finally, bidders are cautioned in entering numbers in the Bid Mult field because, as explained in the following section, a high bidder that withdraws its standing high bid from a previous round, even if mistakenly or erroneously made, is subject to bid withdrawal payments.

(6) Bid Removal and Bid Withdrawal

Before the close of a bidding round, a bidder has the option of removing any bids placed in that round. By using the remove bid function in the software, a bidder may effectively "unsubmit" any bid placed within that round. A bidder removing a bid placed in the same round is not subject to withdrawal payments. Removing a bid will affect a bidder's activity for the round in which it is removed.

Once a round closes, a bidder may no longer remove a bid. However, in the next round, a bidder may withdraw any number of its standing high bids from previous rounds using the withdraw bid function (assuming that the bidder has not exhausted its withdrawal allowance). A high bidder that withdraws its standing high bid from a previous round is subject to the bid withdrawal payments specified in 47 C.F.R. §§ 1.2104(g), and 1.2109. The procedure for withdrawing a bid and receiving a withdrawal confirmation is essentially the same as the bidding procedure described in "High Bids," in this Tab.

Bidders are limited to placing withdrawals in two rounds. These rounds will be at the bidder's discretion and there will be no limit on the number of bids that may be withdrawn in either of these rounds. Withdrawals will still be subject to the bid withdrawal payments specified in 47 C.F.R. §§ 1.2104(g), and 1.2109. **Bidders should note that abuse of the Commission's bid withdrawal procedures could result in the denial of the ability to bid on a market.**

If a high bid is withdrawn, the license will be offered in the next round at the second highest bid price, which may be less than, or equal to, in the case of tie bids, the amount of the withdrawn bid, without any bid increment. The FCC will serve as a "place holder" on the license until a new acceptable bid is submitted on that license.

Generally, a bidder that withdraws a standing high bid during the course of an auction will be subject to a payment equal to the lower of: (1) the difference between the net withdrawn bid and the subsequent net winning bid; or (2) the difference between the gross withdrawn bid and the subsequent gross winning bid for that license. *See* 47 C.F.R. §§ 1.2104(g), and 1.2109. No withdrawal payment will be assessed if the subsequent winning bid exceeds the withdrawn bid.

(7) Round Results

The bids placed during a round are not published until the conclusion of that bidding period. After a round closes, the FCC will compile reports of all bids placed, bids withdrawn, current high bids, new minimum accepted bids, and bidder eligibility status (bidding eligibility and activity rule waivers), and post the reports for public access.

Reports reflecting bidders' identities and bidder identification numbers for Auction No. 22 will be available before and during the auction. Thus, bidders will know in advance of this auction the identities of the bidders against which they are bidding.

(8) Auction Announcements

The FCC will use auction announcements to announce items such as schedule changes and stage transitions. All FCC auction announcements will be available on the FCC remote electronic bidding system, as well as the Internet and the FCC Bulletin Board System.

(9) Changes to Short Forms

As noted in "Pre-Auction Procedures," in Tab C, after the short-form filing deadline, applicants may make only minor changes to their FCC Form 175 applications. For example, permissible minor changes include deletion and addition of authorized bidders (to a maximum of three) and revision of exhibits. Filers should make these changes on-line, and submit a letter to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission, 2025 M Street, N.W., Room 5202, Washington, D.C. 20554 and mail a separate copy to Audrey Baskin, Legal Branch, Auctions and Industry Analysis Division, briefly summarizing the changes. Questions about other changes should be directed to Audrey Bashkin at (202) 418-0660.

HOW TO MONITOR THE FCC AUCTIONS ON-LINE

The auction announcements and round results for Auction 22 will be accessible through the FCC Wide Area Network, the Internet and the FCC Auction Bulletin Board System (BBS). You can check on round results and also read any material released by the Commission during the course of the auction. This fact sheet provides the information that you need to track the auction from your computer.

Option 1: Tracking the Auction via the FCC Wide Area Network

The FCC has implemented a Remote Access System that allows users to dial in directly to the FCC to view round results, auction announcements, and messages, and to make suggestions to the FCC regarding the FCC auction process.

The following minimum hardware and software is required to use the FCC Remote Access System:

Minimum Hardware Requirements

o CPU: Intel Pentium
o RAM: 16 MB (more recommended if you have multiple applications open)
o Modem: v.32bis 14.4kbps Hayes compatible modem or faster (recommend 28.8kps)
o Monitor: VGA or above
o Mouse or other pointing device

Minimum Software Requirements

o Operating System: Microsoft Windows 95/98

o Point-to-Point Protocol (PPP) Dialer: Use the Dial-Up Networking feature included with Windows 95/98

o Web Browser: Netscape Communicator 4.05 with JDK 1.1 or a higher version of Netscape (recommend Netscape Communicator 4.5 which is available at *http://www.netscape.com*)

Connecting to the FCC Network

To use the FCC Remote Access System, you must first connect to the FCC Network using Dial-Up Networking.

Dial-Up Networking connects to a 900 number telephone service at a charge of $2.30 per minute. The first minute of connection time to the 900 number service is at no charge.

Dial-Up Networking establishes a point-to-point connection from your PC to the FCC Network. *This point-to-point connection is not routed through the Internet.*

For instructions regarding how to connect to the FCC Network using Dial-Up Networking, see the *Accessing the FCC Network Using Windows 95/98* section.

Note: Throughout these instructions, "enter" means to type the appropriate information and then press the ENTER key.

Using the FCC Remote Access System

After you have connected to the FCC Network, start your Netscape Web browser. In your browser's *Location* field, enter the following location:

> *http://wtbwww03.fcc.gov* and then click **Round Results Viewer**, **Suggestion Box**, or **Announcements**

When you have finished, exit your Web browser, then disconnect from the FCC Network.

For technical assistance with installing or using FCC software, contact the FCC Technical Support Hotline at (202) 414-1250 (V) or (202) 414-1255 (TTY). The FCC Technical Support Hotline is generally available Monday through Friday, from 8 a.m. to 6 p.m. ET. *All calls to the FCC Technical Support Hotline are recorded.*

Option 2: Tracking the Auction via the Internet

You may use your Web browser to download announcements and round results from *wtbwww01.fcc.gov* or *www.fcc.gov* as described in the following section.

Downloading from *wtbwww01.fcc.gov*:

1. Connect to your Internet service provider and start your Web browser.

2. In the *Location* field of the Web browser screen, enter the following location: *http://wtbwww01.fcc.gov*

3. Click on **Auction 22**.

    - For auction announcements, click on **Announcements**.

- To download a bid import template file, click on **Announcements**, then select template.txt.

- For auction round results, click on **Results** and then click on the subdirectory for the type of files you wish to use:
  >**mdb** - Microsoft Access database files,
  >**txt** - text files, and
  >**dbf** - dBASE database files.

4. Then click on the file you wish to download.

Downloading from *www.fcc.gov*:

1. Connect to your Internet service provider and start your Web browser.

2. In the *Location* field of the Web browser screen, enter the following location: ***http://www.fcc.gov***

3. a. Click on **Auctions***.*

  b. In the *Auctions* section on the right, click **Broadband PCS** under *In Progress.*

  c. Then click on **Announcements, Programs, Results**.

  - For auction announcements, click on **Announcements**.

  - To download a bid import template file, click on **Announcements**, then select template.txt.

  - For auction round results, click on **Results** and then click on the subdirectory for the type of files you wish to use:
    >**mdb** - Microsoft Access database files,
    >**txt** - text files, and
    >**dbf** - dBASE database files.

4. Then click on the file you wish to download.

Archive Directories

The FCC will establish archive directories for round results files on the Internet. After every 50 rounds, files will be moved from the *Results* MDB, TXT, or DBF directories to

a respective archive directory. The newest round results files will continue to be uploaded to the *Results* directory.

For example, in round 102, DBF round results files would be located as follows:

On wtbwww01.fcc.gov:

Rounds 1-50
  http://wtbwww01.fcc.gov/PCS/Broadband/BTA/Auction_22/Results/dbf/D001_050
Rounds 51-100
  http://wtbwww01.fcc.gov/PCS/Broadband/BTA/Auction_22/Results/dbf/D051_100
Rounds 101-102
  http://wtbwww01.fcc.gov/PCS/Broadband/BTA/Auction_22/Results/dbf/

Rounds 1-50
  http://wtbwww01.fcc.gov/PCS/Broadband/BTA/Auction_22/Results/mdb/M001_050
Rounds 51-100
  http://wtbwww01.fcc.gov/PCS/Broadband/BTA/Auction_22/Results/mdb/M051_100
Rounds 101-102
  http://wtbwww01.fcc.gov/PCS/Broadband/BTA/Auction_22/Results/mdb/

Rounds 1-50
  http://wtbwww01.fcc.gov/PCS/Broadband/BTA/Auction_22/Results/txt/T001_050
Rounds 51-100
  http://wtbwww01.fcc.gov/PCS/Broadband/BTA/Auction_22/Results/txt/T051_100
Rounds 101-102
  http://wtbwww01.fcc.gov/PCS/Broadband/BTA/Auction_22/Results/txt/

On www.fcc.gov:

Rounds 1-50
  http://www.fcc.gov/Auctions/PCS/Broadband/BTA/Auction_22/Results/dbf/D001_050
Rounds 51-100
  http://www.fcc.gov/Auctions/PCS/Broadband/BTA/Auction_22/Results/dbf/D051_100
Rounds 101-102
  http://www.fcc.gov/Auctions/PCS/Broadband/BTA/Auction_22/Results/dbf/

Rounds 1-50
  http://www.fcc.gov/Auctions/PCS/Broadband/BTA/Auction_22/Results/mdb/M001_050
Rounds 51-100
  http://www.fcc.gov/Auctions/PCS/Broadband/BTA/Auction_22/Results/mdb/M051_100
Rounds 101-102
  http://www.fcc.gov/Auctions/PCS/Broadband/BTA/Auction_22/Results/mdb/

Rounds 1-50
  http://www.fcc.gov/Auctions/PCS/Broadband/BTA/Auction_22/Results/txt/T001_050
Rounds 51-100
  http://www.fcc.gov/Auctions/PCS/Broadband/BTA/Auction_22/Results/txt/T051_100
Rounds 101-102
  http://www.fcc.gov/Auctions/PCS/Broadband/BTA/Auction_22/Results/txt/

Option 3: Tracking the Auction via the Bulletin Board System (BBS)

The FCC Auction Bulletin Board System (BBS) provides dial-in access for Auction Results. To access the FCC Auction BBS, use a communications package that can handle Zmodem protocol (such as PcAnyWhere, Procomm, or Microsoft Hyperterminal in Windows 95/98) to dial in to (202) 682-5851. Use the settings of 8 data bits, no parity and 1 stop bit (8,N,1).

Once your computer is connected to the Auction BBS, do the following:

1. To create an account:

   a. Enter your first name.

   b. Enter your last name.

   c. When asked whether you want to create an account, enter *y*. (You may also enter *Y*, the program accepts either case.)

   d. When prompted, enter a password.

      The password can be from four to ten characters long (where the characters can be either letters or numbers).

   e. To confirm the password, enter it again.

   f. When prompted for contact information, enter your voice phone number. Include the area code; for example, you might enter *202-555-1234*.

   g. Enter your company name.

2. On the Welcome screen, enter *c* for *Continue*.

3. When asked whether you want to view the bulletin menu, enter *y* for *Yes*. Then, to continue, press ENTER to obtain the FCC Auction BBS Main Menu.

4. Enter *a* (for Auction Menu) to obtain the *Auction Library Menu*. The top options on this menu provides a range of numbers to represent the available auctions.

5. To select *Auction 22*, enter *c* to select the third range.

6. On the Auctions Library Menu, enter the number of the auction you want. Enter *1*, in this case.

   The Auction Menu appears.

7. Enter *a* to select *Announcements* or enter *r* to select *Results*.

   The list of available files for Auction 22 appears. These files are sorted by date, with the most recent files at the beginning of the list.

8. To scroll downward to the next screen of file names, either press ENTER or enter *c* for *Continue*. To scroll upward to the preceding screen of file names, enter *p* for *Previous*.

   Note that on each screen, file names are numbered separately, starting with 1.

9. To select one or more files for downloading or viewing, mark the files you want. The program marks a file by preceding its name with an asterisk (*).

   You can do the following:

   o   To mark an individual file, enter its line number.

   o   To mark a range of files, enter *m* (for *Mark*) and then enter the range of files in response to the prompt. For example, to mark files 6 through 12, enter *6-12* at the prompt.

   o   To unmark a file, enter its number again. You can also use Mark to unmark a range of files.

10. When you have finished marking files, you may download or view the marked files (you may only view text files).

    To download the marked files, take the following steps:

    a.   Enter *d* for *Download*.

         The program displays a list that summarizes the download operation. The *Time* column lists the download time for each file; the *Total Time* column lists a running total of the download times.

    b.   Enter *d* to proceed.

    c.   Select the file transfer protocol that has been specified in your terminal emulation software (e.g., Zmodem).

    d.   When the download operation has finished, the list of files reappears.

    To view the marked files, do the following:

     a.   Enter *v* for *View*.

     b.   Enter the file number that you would like to view.

11. Enter *x* to leave the BBS.

Note: All round results files will be accessed through the *Results* menu on the BBS. No archive menus will be created.

Announcement Files

The announcement files will use the following naming convention: *aa_xxx.nn* where *aa* is the auction number, *xxx* is the round number and *nn* is the announcement number. For example, 22_002.07 would represent an announcement for Auction 22 that was posted during round two and was the seventh announcement for the auction.

Round Results Files

For each round, dBase-compatible database files will be uploaded with the following naming conventions:

    22_*xxx*S.DBF contains all bids submitted in a particular round
    22_*xxx*W.DBF contains all bids withdrawn in a particular round
    22_*xxx*E.DBF contains the maximum eligibility and remaining number of waivers
    for each bidder
    22_*xxx*H.DBF contains the high bids in a particular round and the minimum
    accepted bids for the next round where *xxx* represents the round number.

For those who cannot use the dBase-compatible database files, we will also upload the ASCII text (.TXT) version of these files with the same filenames as above (e.g., 22_ *xxx*S.TXT, 22_*xxx*E.TXT).

In addition, if you wish to use Microsoft Access or are using the FCC provided Auction Tracking Tool, we upload the MDB access version of the round results files with the filenames as above (e.g., 22_ *xxx*S.MDB, 22_*xxx*E.MDB).

Round Results File Formats

The Round Results File Formats will be published in a future Public Notice.

Help

For technical assistance with downloading files or installing and using FCC software, contact the FCC Technical Support Hotline at (202) 414-1250 (V) or (202) 414-1255 (TTY). The FCC Technical Support Hotline is generally available Monday through Friday, from 8 a.m. to 6 p.m. ET. *All calls to the FCC Technical Support Hotline are recorded.*

AUCTION TRACKING SOFTWARE

The FCC has developed a tool for tracking the results of it auctions. Anyone wishing to familiarize themselves with the tool will be able to download the tool with a sample database when it becomes available. Unlike the previous Microsoft Excel based tool, this one can be used for the mock and actual auction. The FCC Auction Tracking Tool ("ATT") will be made available for download before commencement of the mock auction for Auction No. 22 via the Internet at www.fcc.gov/wtb/auctions/auc22_1.html. The ATT will also be available via the FCC Auctions Bulletin Board System. For installation and use instructions, please see the README file and on-line help system that accompany the ATT.

The ATT is a stand-alone application that runs on Microsoft Windows 95/98 and NT operation systems and does not require any other software for basic operation, although some advanced features do require Microsoft Excel 97. The ATT will allow users to import round results files (as outlined in this TAB) and analyze bidding results at the end of each round of the auction.

User Requirements. The software is designed for a wide range of users. For the most effective use of the tool, users should have a working knowledge of the following:

- Microsoft Windows 95, 98, or NT
- Microsoft Excel
- The FCC simultaneous multiple round ascending auction format

Software and Hardware Requirements. As a minimum users will need the following to operate the ATT:

- Microsoft Windows 95, 98, or NT
- 40-50 MB if available hard disk space. For the application itself, only 2 - 3 MB of disk space will be necessary. The auction database can grow quite large and more space may be required if there are large number of bidders and rounds.
- At least 16 MB RAM and a Pentium 133 MHz processor is required with 32 MB RAM and a Pentium 166 MHz recommended.
- While most of the features of the tool do not require additional software, some features will require Microsoft Excel.

This attachment describes how to access the FCC Network from a system that is
running the Microsoft Windows 95 or Microsoft Windows 98 operating system. This
involves configuring dial-up network access and then performing the dial-up procedure.

Conventions

The instructions in this section use the following typographical conventions:

bold   Represents objects on the screen that you click with the mouse pointer,
              including buttons, Internet links, icons, tabs, menu items (e.g., **Cancel**
              button, **Auctions** link, **Save** option in the File menu).

italic   Represents field names or areas of a screen (e.g., *Applicant* field,
                  Selected Licenses area of a screen).

bold italic   Represents characters that you must type exactly as they appear in the
                  instructions. For example, if you are instructed to type
                  http://wtbwww03.fcc.gov, you should type all of the characters shown
                  in bold italic exactly as they are printed.

SMALL CAPS   Represents keys on the keyboard (e.g., ENTER, CTRL, ESC).

Note: Throughout these instructions, "enter" means to type the appropriate information
and then press the ENTER key.

Configuring Dial-Up Networking

1.   To start dial-up networking:

        a.   Click the Windows 95/98 **Start** button.
        b.   Click the **Programs** option to display the Programs menu.
        c.   Click the **Accessories** option to display the Accessories menu.
        d.   In Windows 95, click **Dial-Up Networking**.
                In Windows 98, click **Communications**, then **Dial-Up Networking** .

        If Dial-Up Networking is not an option on your Accessories menu, you should
        install it from your Windows 95/98 CD or diskettes.

2.   When the Dial-Up Networking window appears, double-click the **Make New
        Connection** icon.

3.   The Make New Connection window appears.
      If you are connecting to submit FCC Form 175 applications, type *FCC Auctions 800#* in the field titled *Type a name for the computer you are dialing.* If you are connecting to review FCC Form 175 applications or to use the FCC Remote Access System, type *FCC Auctions 900#* in the field titled *Type a name for the computer you are dialing.*

> **Note**: If you connect to the FCC's 900# telephone service, there is a charge of $2.30 per minute. The first minute of connection time to the 900 number service is at no charge.

4.   In Windows 95, click the down arrow at the right of the *Select a modem* field and select your modem from the menu of available modems.

      In Windows 98, click the down arrow at the right of the *Select a device* field and select your modem from the menu of available devices.

      If your modem does not appear on this list, you must install your modem driver according to the modem manufacturer installation procedures, which are usually described in your modem's user manual.

5.   Click the **Next** button.

6.   If you are connecting to submit FCC Form 175 applications, type *800* and *378-7435* in the *Area Code* and *Telephone Number* fields, respectively.

      If you are connecting to review FCC Form 175 applications or to use the FCC Remote Access System, type *900* and *555-5335* in the *Area Code* and *Telephone Number* fields, respectively.

7.   Verify that the correct country is selected in the *Country code* field.

      If necessary, click the down arrow at the right of the *Country code* field and select the appropriate country from the menu of available countries.

8.   Click the **Next** button.

9.   Click the **Finish** button.

      An icon labeled either *FCC Auctions 800#* or *FCC Auctions 900#* appears in the Dial-Up Networking window.

10.   Verify that properties are configured correctly before attempting a dial-up session. Put the mouse pointer on the FCC Auctions icon that you wish to configure and click the *right* mouse button to display a menu. Click **Properties** from the menu.

11. Click the **Configure** button. Click the **Options** tab at the top of the Properties window.

12. In the *Connection control* area of the Options tab, verify that *neither* option is selected. If either option is selected, click the check box at the left of the option to deselect it. Then click **OK**.

13. In Windows 95, click the **Server Type...** button.

    In Windows 98, click the **Server Types** tab at the top of the Properties window.

14. In the *Advanced Options* area, verify that only *Enable software compression* is selected. If it is not selected, click the check box at the left of the option to select it. If either of the other options is selected, click the check box to deselect it.

15. In the *Allowed Network Protocols* area, verify that only *TCP/IP* is selected.

    If it is not selected, click the check box at the left of the option to select it. If either of the other options is selected, click the check box to deselect it.

16. Click the **TCP/IP Settings** button and select *Specify name server addresses.*

17. Type *165.135.22.249* as the Primary DNS.

18. Click **OK** on the TCP/IP Settings window and the Server Type window.

19. a. Click the Windows 95/98 *Start* button, then click the *Settings* option to display the Settings menu.

    b. Click *Control Panel* and then double-click the *Network* icon.

    c. Highlight the TCP/IP Protocol and click *Properties.* If there are multiple TCP/IP protocols, highlight TCP/IP --> Dial-Up Adapter and click *Properties.*

    d. Click the *DNS Configuration* tab.

    e. Select *Enable DNS.* Type **bidder** in the *Host* box, type **fcc.gov** in the *Domain* box, then type **165.135.22.249** in the DNS Server Search Order box and click the *Add* button.

    f. Click *OK* on the TCP/IP Properties windows, then click *OK* on the Network windows.

g. If you are prompted to restart your computer, click *Yes* to restart, then begin the Dial-Up Procedure.

Dial-Up Procedure

1. If the Dial-Up Networking window is not currently open, do the following:
   a. Click the Windows 95/98 **Start** button.
   b. Click the **Programs** option to display the Programs menu.
   c. Click the **Accessories** option to display the Accessories menu.
   d. In Windows 95, click **Dial-Up Networking**
      In Windows 98, click **Communications**, then **Dial-Up Networking**.

   The Dial-Up Networking window appears.

2. In the Dial-Up Networking window, double-click the **FCC Auctions 800#** or **FCC Auctions 900#** icon.

   Note: If you connect to the FCC's 900 number telephone service, there is a charge of $2.30 per minute. The first minute of connection time to the 900 number service is at no charge.

3. Click the **Connect** button on the window. *Do not enter User name and Password* .

   The Connection window appears, indicating the status of your connection as your modem dials into the system. This window must remain running during your dial-up session. You may minimize the window, if you wish.

   If your modem fails to establish a connection, please see the *Troubleshooting* section below.

4. Once the connection is established, open your Web browser.

5. In your browser's *Location* field, enter the appropriate Universal Resource Locator (URL) as follows:

   * For FCC Form 175 Submit, enter ***http://wtbwww04.fcc.gov***

   * For FCC Form 175 Review or the FCC Remote Access System, enter ***http://wtbwww03.fcc.gov***

   If nothing appears in your Web browser, please see the *Troubleshooting* section below.

6. When you have finished, exit the Web browser, then click the **Disconnect** button on the Connection window to end your dial-up session.

Troubleshooting

Following are problems you may encounter and possible solutions for resolving or isolating them.

Modem does not respond

1. Confirm that all physical connections for the modem are present.

2. Confirm that the phone line is active by connecting it to a telephone and checking for a dial-tone.

3. If you are dialing the 900 number service, check for a 900 number telephone block. If the volume settings are low, the modem may be dialing but not connecting. Check for this by trying to connect to the 800 number, or by dialing the 900 number on that line using a telephone.

4. Confirm that the correct modem driver is installed for your modem.

Modem dials but does not connect

1. If you are dialing the 900 number service, check for a 900 number telephone block. Check for this by dialing the 800 number to see if you connect, or by dialing the 900 number on that line using a telephone.

2. Confirm that the number the modem is dialing is correct.

3. Confirm that the modem prefix, if any, is correct.

Modem dials and connects, but nothing appears when you enter the Location in the Web browser

1. Verify the Dial-Up Networking settings specified in the *Configuring Dial-Up Networking* section.

2. Confirm that your Web browser is not using proxies.

Receive an Internal Server error in the Web browser

1. Confirm that the *Location* is correct.

2. Confirm that *JavaScript* is enabled in your Web browser.

Help

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