



FCC Auction Bidding System User Guide

SIMULTANEOUS MULTIPLE ROUND AUCTION

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1. Introduction

This guide describes the features of the web-based FCC auction bidding system (ABS) that will be used to bid in FCC spectrum auctions.

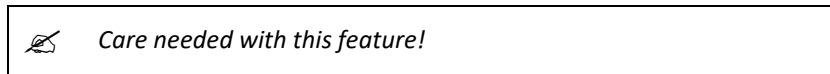
The Simultaneous Multi Round Auction (SMRA) is conducted in a series of timed bidding rounds. During a bidding round, users are able to place bids for items. Each bid will specify either the minimum acceptable bid (MAB) or one of eight additional bid increments. Bids can be submitted in one of two ways—via the bidding screen or via an upload of a bid file.

After a round closes, ABS processes the bids and posts the results. Users will get information about the status of the auction, including the total provisionally winning bid amount for the auction and number of new bids for the round. For each item, bidders can see the provisionally winning bid amount and whether they are the provisionally winning bidder. The MAB prices for each item for the next round are available on the Place Bids screen and in downloads.

1.1. Conventions

In this guide screen names are Capitalized, links in the system are underlined, and the following text represents a Button.

Text boxes are used to indicate points where particular care is needed:



In this guide, the term “bidder” refers to an applicant that has been identified by the FCC as qualified to bid in the auction based on review of its FCC Form 175 application. The terms “user,” “you,” and “authorized bidder” refer interchangeably to an individual authorized bidder identified on a qualified bidder’s Form 175 as an individual authorized to access ABS and to submit bids on behalf of the qualified bidder.

1.2. Guide Structure

After this introduction, the guide is set out as follows:

- Section 2, System Requirements and Access, describes the system requirements for accessing the system and how to log in.
- Section 3, System Navigation and Overview, explains how to navigate the system and provides a summary of the screens available to bidders.
- Section 4, Auction Info, describes information about the items available during the auction.
- Section 5, Auction Schedule, describes how to view the auction schedule.

- Section 6, Announcements and Conversations, describes how to view the announcements that have been released for this auction and how a bidder can send messages to the FCC.
- Section 7, Bidding Functions, describes how to place and remove bids, create watchlists, upload bids and place a proactive waiver.
- Section 8, Activity and Eligibility, describes how to verify bids submitted, activity, eligibility and commitment in a round.
- Section 9, Round Summary, describes how to access summaries of bidding actions taken during a round.
- Section 10, Post Results, describes how to access the results at the conclusion of each bidding round.
- Section 11, Downloads, describes the structure and format of the upload and download files.
- Section 12, Final Results, describes how to view auction results after the auction has concluded.

There are two appendices:

- Appendix 1, System Troubleshooting, provides troubleshooting tips for a number of different scenarios.
- Appendix 2, Data Type Definitions, provides an interpretation of data types defined in this document.

2. System Requirements and Access

This section explains the system requirements for accessing ABS, how to log in, and other matters related to access.

2.1. Minimum System Requirements

At the minimum, the following is required to access ABS:

- Microsoft® Windows® 7, Windows® 8.1, or Windows® 10, or Apple® Mac® OS X® 10.13
- Microsoft® Internet Explorer® 11 or a recent version of Google Chrome™ (the browser must be configured to accept cookies and JavaScript) with a minimum of TLS 1.2¹ security²
- Access to the Internet
- 1920 x 1080 screen resolution³

Smartphones and tablets are not supported. ABS may run on different computer configurations, including browsers not listed above. It is the responsibility of the user to test any alternative configurations with ABS in advance of the auction—for example during the mock auction—and to ensure that they have access to one of the supported browsers should they experience problems.

Users are discouraged from using web browsers containing third-party toolbars or other extensions. Third-party browser extensions potentially may cause problems for users of interactive websites, including ABS, and may make users' computers more vulnerable to hacker attacks. If in doubt, you should consult your internal information technology departments in order to disable third-party browser extensions or, if necessary, obtain a clean installation of a supported web browser.

To maximize protection against potential security vulnerabilities, users are advised to ensure the latest service pack (if applicable), security patches for their operating system (including Internet Explorer), and the most recent version of Google Chrome (where relevant), have been installed.

2.2. Logging In

Once ABS becomes available you can log in using the URL provided only to qualified bidders in the registration materials. When available, the link to the Login screen, as shown in Figure 1, will be visible.

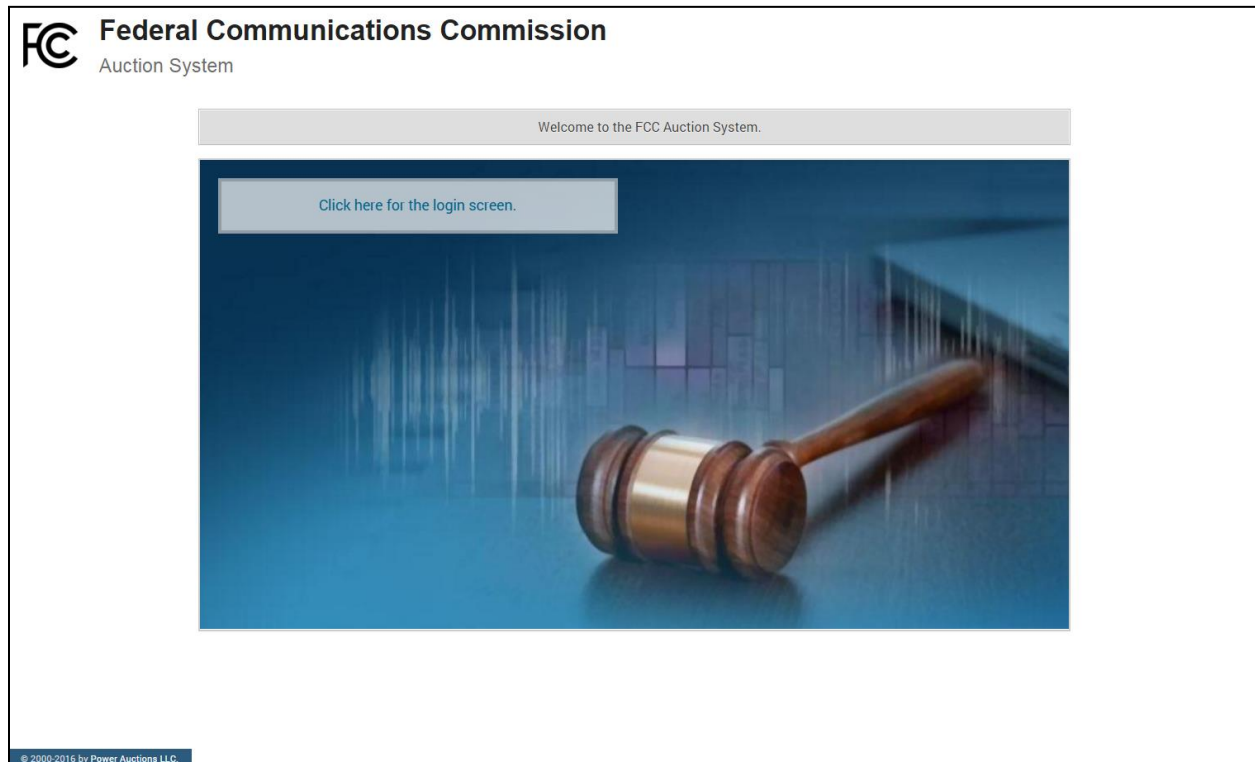
¹ These are the default settings for most modern browsers. Appendix 1 explains how to check the settings and/or reset them, in case this is necessary.

² Microsoft Internet Explorer 11 is referred to elsewhere in this document as "Internet Explorer." Google Chrome is referred to elsewhere in this document as "Chrome." Google and the Google logo are registered trademarks of Google Inc.

³ Other screen sizes will work, but the system has been optimized for 1920 x 1080 screens in order to fit all of the information onto a single screen without horizontal scrolling. If all of the information from ABS cannot fit on your display, you can either zoom out using your Internet browser or scroll right and left using the scroll bars. To adjust the zoom, hold down the control ("ctrl") key and use the "+" and "-" keys to zoom in and out.

When the Login screen is not available, there will be a message on the screen and the link to access the Login screen will not be visible.

Figure 1: ABS homepage



Click on the [Click here for the login screen](#) link in order to get to the Login screen shown in Figure 6 on page 8.

This guide provides two sets of login instructions: Section 2.2.1, initial login where an authorized bidder creates a personal identification number (“PIN”) and logs in for the first time; and Section 2.2.2, the standard login used after the PIN is created.

Each authorized bidder listed on the bidder’s FCC Form 175 will have a unique username (user ID) provided by the Commission, which will be associated with a specific RSA SecurID® token (RSA token) assigned to the authorized bidder for the auction. All authorized bidders for a qualified bidder will use the same password, which is the password associated with the FRN (FCC Registration Number) used on the bidder’s FCC Form 175. The RSA tokens are specific to an authorized bidder, and each authorized bidder will need to set a private PIN for his or her token.

The RSA token generates a time-sensitive 6-digit tokencode that changes every 60 seconds. This tokencode is required as part of the login process along with the authorized bidder’s username and password. RSA tokens will be sent by overnight delivery to the contact person identified in the FCC Form 175 for each qualified bidder listed on the Qualified Bidder PN, and must be distributed by the contact person to each of the specified authorized bidders.

The username and RSA token should be used only by the authorized bidder to which it was assigned. ABS logs all actions taken by a user based on the username entered when logging in.

Figure 2: An RSA SecurID® token



Please note that each RSA token is tailored to a specific auction. Therefore, RSA tokens issued for other auctions or obtained from a source other than the FCC will not work for this auction.

At the conclusion of the auction the Commission will send each bidder a pre-addressed, stamped envelope to return its RSA tokens.

2.2.1. First Time Login Procedures

The first time you log in to the system each authorized bidder for a particular qualified bidder will create a personal identification number (PIN). After the first time login procedure has been completed and a PIN created, you will follow the standard login procedures (detailed in section 2.2.2. below).

You will need the following login credentials to access the system for the first time:

- Username (user ID): FCC assigned
- Password: FRN password associated with the qualified bidder's FRN
- RSA tokencode: a six-digit code generated by the RSA SecurID® token

In the ABS login area, type the username, password and current tokencode displayed on your RSA token as shown in Figure 3. Leave the PIN field blank and click .

If you forget your FRN password, you can contact the FRN Help Line at (877) 480-3201 option 1 (Mon-Fri 8:00 am – 6:00 pm Eastern Time).


Figure 3: First time login procedure

Please log in.

Username:

Password:

PIN:



TIP: if you have not set an RSA PIN, please leave the PIN field blank.

RSA tokencode will be generated by your RSA SecurID® token and will not be the same as the code shown in Figure 3.

This opens a screen to create a private PIN as shown in Figure 4.

Figure 4: Set PIN screen

You must set a new PIN to continue.

Please enter a new PIN for your RSA SecurID® token.

This PIN may be from 4 to 8 digits long and must be numeric.

PIN:

PIN Again:

Expires in: 111 s

Type a 4-8 digit numeric PIN of your choice in the PIN field. Enter it twice as requested to ensure accuracy. Then click **Change PIN**. Memorize this PIN! There is a limited amount of time to set a new PIN and confirm your credentials, as shown by the expiration time on the screen.

A message will display in a yellow box above the PIN and tokencode fields to indicate that the new PIN was accepted, as shown in Figure 5.


Type in the PIN you just created and a new tokencode. **Do not use the tokencode from the previous login page.** Make sure that the number on the RSA token's display has changed, type this new number into the tokencode field, and then click **Continue**.

Figure 5: Confirm RSA credentials screen

The new PIN was accepted. Please finalize the login with new RSA credentials.

Please wait until the tokencode changes on your RSA token. Then, enter the new tokencode.

PIN:



Expires in: 98 s

After completing the set-up procedure, you will be able to access ABS and see the navigation bar on the left-hand side. Thereafter, the standard login procedure applies.

2.2.2. Standard Login Procedure

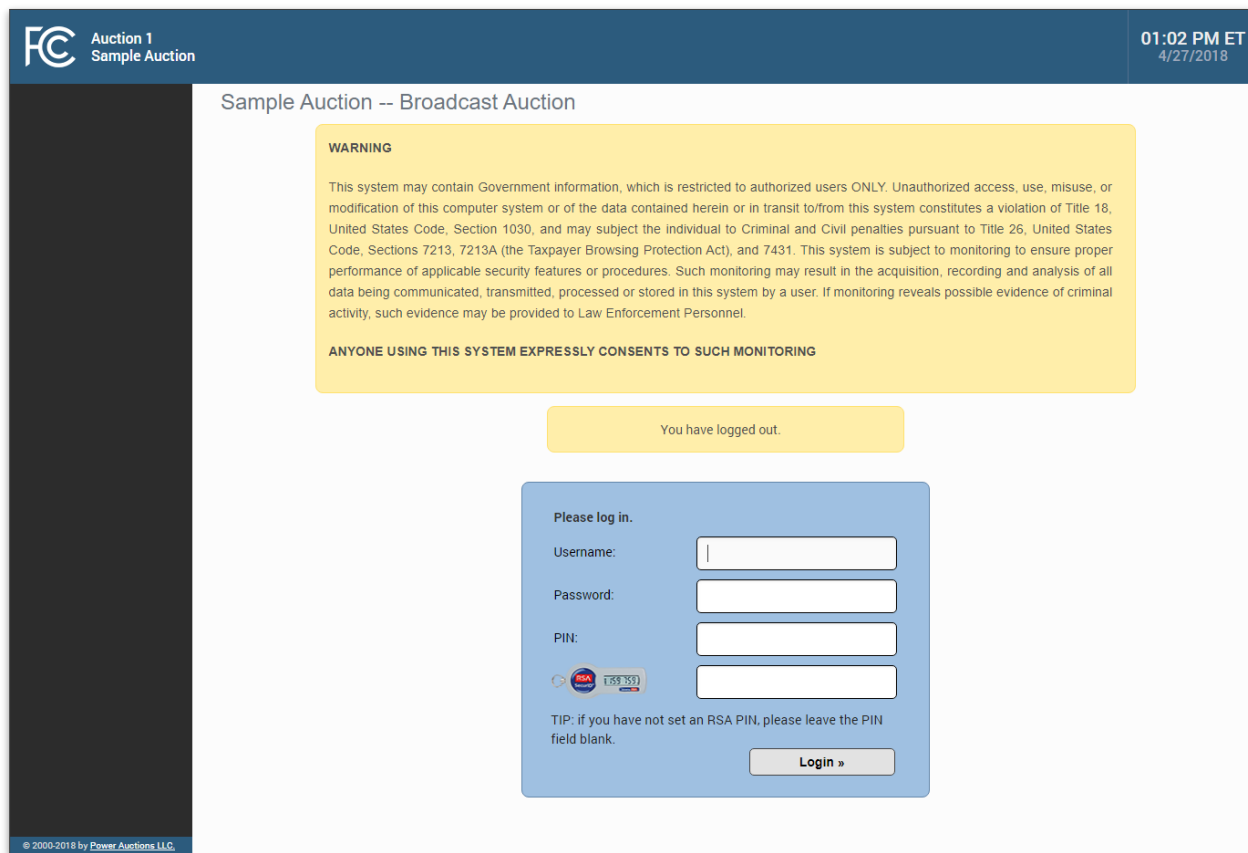
To log into ABS, you will need the following login credentials:

- Username (user ID): FCC assigned
- Password: FRN password associated with the qualified bidder's FRN
- PIN: numeric PIN created during the initial login
- RSA tokencode: a six-digit code generated by the RSA SecurID® token

Enter the information on the Login screen (see Figure 6) and click .

If you forget your FRN password, you can contact the FRN Help Line at (877)480-3201 option 1 (Mon-Fri 8:00 am – 6:00 pm Eastern Time).

Figure 6: Login screen



2.3. Additional Information

2.3.1. RSA SecurID Token Information

2.3.1.1. Number of RSA Tokens Issued and Extra RSA Tokens

Each qualified bidder is issued either two or three RSA tokens depending upon the number of authorized bidders it identified on its FCC Form 175. A bidder with three authorized bidders is issued three RSA tokens. A bidder with two authorized bidders is issued two RSA tokens for its authorized bidders PLUS one extra RSA token. A bidder with one authorized bidder is issued one RSA token for its authorized bidder PLUS one extra RSA token. Each bidder is permitted to identify up to three authorized bidders on its FCC Form 175.

Bidders cannot use the extra RSA token unless they contact the FCC to activate the extra RSA token for a specific user.

Each RSA token is associated with a specific authorized bidder. RSA tokens are not interchangeable among authorized bidders. The FCC must reassign the token in the RSA server for the token to become functional.

2.3.1.2. Replacing Lost or Damaged RSA Tokens

In the event that an RSA token is lost or damaged, the person who has been designated as the authorized bidder, contact person, or certifying official listed on the bidder's FCC Form 175, should call the Auction Bidder Line telephone number provided with their registration materials to request activation of a replacement token.

2.3.1.3. Change of User (Authorized Bidder)

A qualified bidder may change or replace its authorized bidders. For more information on changing the authorized bidder assigned to an RSA token, the person who has been designated as the contact person or certifying official on the bidder's FCC Form 175 application should call the Auction Bidder Line telephone number provided with the registration materials.

2.3.1.4. Forgotten PIN

If an authorized bidder forgets his PIN, he should contact FCC Technical Support hotline ((877) 480-3201, option nine; (202) 414-1250; or (202) 414-1255 (TTY)) to have the PIN reset. Please note, however, that this process might not occur before the next round begins. In this event, a bidder with insufficient activity will either use an activity rule waiver or lose bidding eligibility. The FCC Technical Support Hotline is generally available Monday through Friday from 8 a.m. to 6 p.m. ET. Multiple users for the same bidder

2.3.2. Multiple Users for the Same Bidder

It is possible for more than one authorized bidder for the same qualified bidder to log in and access the system at the same time, each using their assigned username and credentials. Any updates made by one such authorized bidder will be displayed on the screen of the other users for the same bidder after the screen is refreshed.

However, **only one such authorized bidder should bid at any given time** to avoid a potential conflict in data that may produce a bid, or set of bids, that was not intended.



To avoid a potential conflict in data that may produce a bid, or set of bids, only one authorized bidder should bid at any given time.

2.3.3. Automatic Logout

A single user cannot be logged into ABS using two computers at the same time.

Trying to use the same username to access ABS from a second computer will automatically log the user out from the first computer and the first computer will display a log out notification. This is a protective feature for users, because it allows a user to log in to ABS using a second computer if the first computer crashes before the user was able to log out of the system.

2.3.4. Lock Screen and Log out

You may manually lock your screen by clicking on the **Lock Screen** button, located at the bottom of the navigation bar on every screen as shown in Figure 7 in the next section. If you are inactive for more than 15 minutes, ABS will automatically lock your screen. Unlocking the screen requires the password followed by clicking **Unlock**.

If you are inactive for more than 30 minutes, ABS will log you out completely. You will need to log in again to access the site. You may manually log out of ABS at any time using the **Logout** button, located at the bottom of the navigation bar on every screen, as shown in Figure 7.

2.3.5. Login Errors

During an auction, the system keeps track of the success or failure of each login attempt made by the authorized bidders. In case of incorrect entry of data into any of the four required fields during login, you will receive an error message with an error code. For assistance call the Auction Bidder Line at the number provided with your registration materials.

2.3.6. Browser Navigation

Bidders, who are logged in, are advised to use the navigation features of the ABS. Using browser's forward and back navigation functions may produce unpredictable results.

2.3.7. Bidding via the Auction Bidder Line

The Auction Bidder Line is available to assist bidders in first time login procedures, bidding actions, reviewing round results, announcements and auction related questions. The telephone number for the Auction Bidder Line was provided with your registration materials.

Bidders need to provide the telephonic bid assistant with the appropriate login information to access ABS. Telephonic bid assistants are required to follow a script, and the length of calls to place bids will vary depending upon the complexity and the number of bids. Bidders are therefore reminded to allow sufficient time to bid by placing their calls well in advance of the close of a round.

3. System Navigation and Overview

3.1. Navigation Bar and Features Common to All Screens

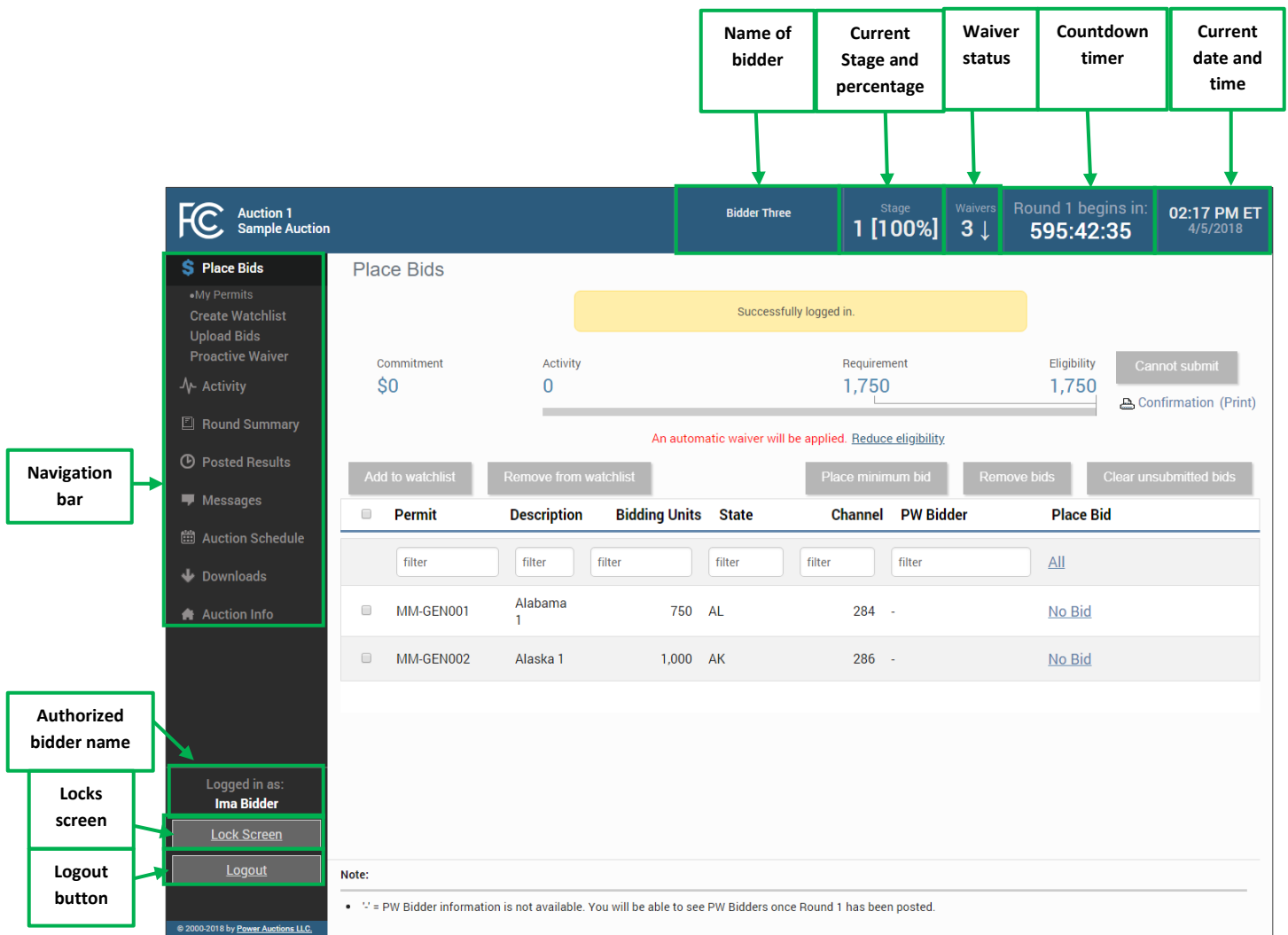
Once you have logged in successfully as a bidder to ABS you will see a blue bar at the top of the page and a black navigation bar on the left.

All screens have a black navigation bar with links to the available screens. Beneath the navigation bar the name of the authorized bidder who has logged in, the [Lock Screen](#) button and the [Logout](#) button as described in Section 2.3.4.

The blue bar at the top of each screen displays status and timing information that is common to all screens. It shows the name of the bidder, the stage and stage percentage, number of activity rule waivers remaining and withdrawals remaining (not available in all auctions), the current round, a countdown timer showing the time to the beginning or the end of a round, and the current date and time in Eastern Time (ET).

An illustration of the navigation bar and common screen features is shown in Figure 7.

Figure 7: General ABS screen layout



3.2. Summary of ABS Screens

The navigation bar gives access to eight screens and the means to do the following:

Table 1: Summary of screens reached from the navigation bar

Place Bids	Allows you to submit bids and view bids for the round. After the auction has concluded this screen will show final results.
Create Watchlist	Allows you to create custom watchlists of items.
Upload Bids	Allows you to upload bids by using an upload bids file.
Proactive Waiver	Allows you to place a proactive waiver.
Activity	Allows you to see a summary of commitment, activity and eligibility for submitted bids and, in a separate table, the same information including selected but unsubmitted bids.

Round Summary	Allows you to view a summary of all bids submitted on behalf of the bidder during a particular round.
My Actions	Allows you to view all actions in log mode, and provides information on commitment, activity, eligibility and waiver and withdrawal* status.
Confirmations	Allows you to view confirmations of bids placed in the current and past rounds.
Posted Results	Allows you to view results of past rounds.
My Bid Results	Allows you to see the results of your bidding, including personal statistics, filtered by round and items.
Last Posted Round	Allows you to see the status of the auction for the last posted round, including Dollar and Percentage changes and Stage Transition Percentage. It also displays additional status information about the bidder's items, including Withdrawn Bids (if allowed) and Item Status.
Messages	Allows you to view announcements and messages from the FCC—you may also use this screen to send messages to the FCC.
Auction Schedule	Allows you to view the schedule for upcoming bid rounds.
Downloads	Allows you to download information, including submitted bids, item and bidder status and prices.
Auction Info	Allows you to view information about the available items in the auction.
Auction Info	Allows you to view a list of items in the auction and information about each item.

*if withdrawals are allowed in the auction

Screens may be printed, either by using the browser print function or by clicking the [Print](#) button.

4. Auction Info

The Auction Info screen displays information about all the items available during the auction. You may access the Auction Info screen once ABS becomes available.

As shown in Figure 8, the Auction Info screen lists all the items in the auction and details about each item. The information displayed in all but the last two columns is identical for all bidders. The last two columns have specific information about the items selected on your FCC Form 175 and possible bidding credits.

In addition, the screen also contains various links to related FCC websites.

Figure 8: Auction Info

The screenshot shows the Auction Info interface. At the top, there's a header with 'Auction 1 Sample Auction', 'Bidder Three', 'Stage 1 [100%]', 'Waivers 3 ↓', 'Round 1 begins in: 595:42:35', and '02:17 PM ET 4/5/2018'. A left sidebar contains navigation options like 'Place Bids', 'Activity', 'Round Summary', 'Posted Results', 'Messages', 'Auction Schedule', 'Downloads', and 'Auction Info'. The main content area has tabs for 'Auction Info' and 'Bidder Permit Data'. Below the tabs, there's a message 'This is a sample auction.' and three buttons: 'FCC Home Page', 'Auction Home Page', and 'FCC Form 175'. A 'Print' button is in the top right. The main feature is a table with 10 columns: Permit, Description, Bidding Units, Minimum Opening Bid, Channel, State, City, Service, Selected, and My Bidding Credit. Each column has a 'filter' button above it. The table lists 9 items (MM-GEN001 to MM-GEN009) with their respective details.

Permit	Description	Bidding Units	Minimum Opening Bid	Channel	State	City	Service	Selected	My Bidding Credit
MM-GEN001	Alabama 1	750	\$750	284	AL	Alabama 1	MM	Y	0%
MM-GEN002	Alaska 1	1,000	\$1,000	286	AK	Alaska 1	MM	Y	0%
MM-GEN003	Arizona 1	1,500	\$1,500	290	AZ	Arizona 1	MM	N	
MM-GEN004	Arkansas 1	750	\$750	289	AR	Arkansas 1	MM	N	
MM-GEN005	California 1	1,500	\$1,500	229	CA	California 1	MM	N	
MM-GEN006	Colorado 1	1,000	\$1,000	229	CO	Colorado 1	MM	N	
MM-GEN007	Florida 1	750	\$750	232	FL	Florida 1	MM	N	
MM-GEN008	Georgia 1	1,000	\$1,000	232	GA	Georgia 1	MM	N	
MM-GEN009	Hawaii 1	1,000	\$1,000	261	HI	Hawaii 1	MM	N	

Logged in as: **Ima Bidder**
 Lock Screen
 Logout
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5. Auction Schedule

The Auction Schedule screen shows the current schedule for upcoming rounds in Eastern Time (ET), as illustrated in Figure 9. The FCC may adjust the number of rounds per day as necessary, as the auction proceeds. The screen displays the following information:

- The date, duration, start time and end time for all scheduled rounds in Eastern Time (ET)
- The time of the next event in red bold text—in this example, the start of Round 1


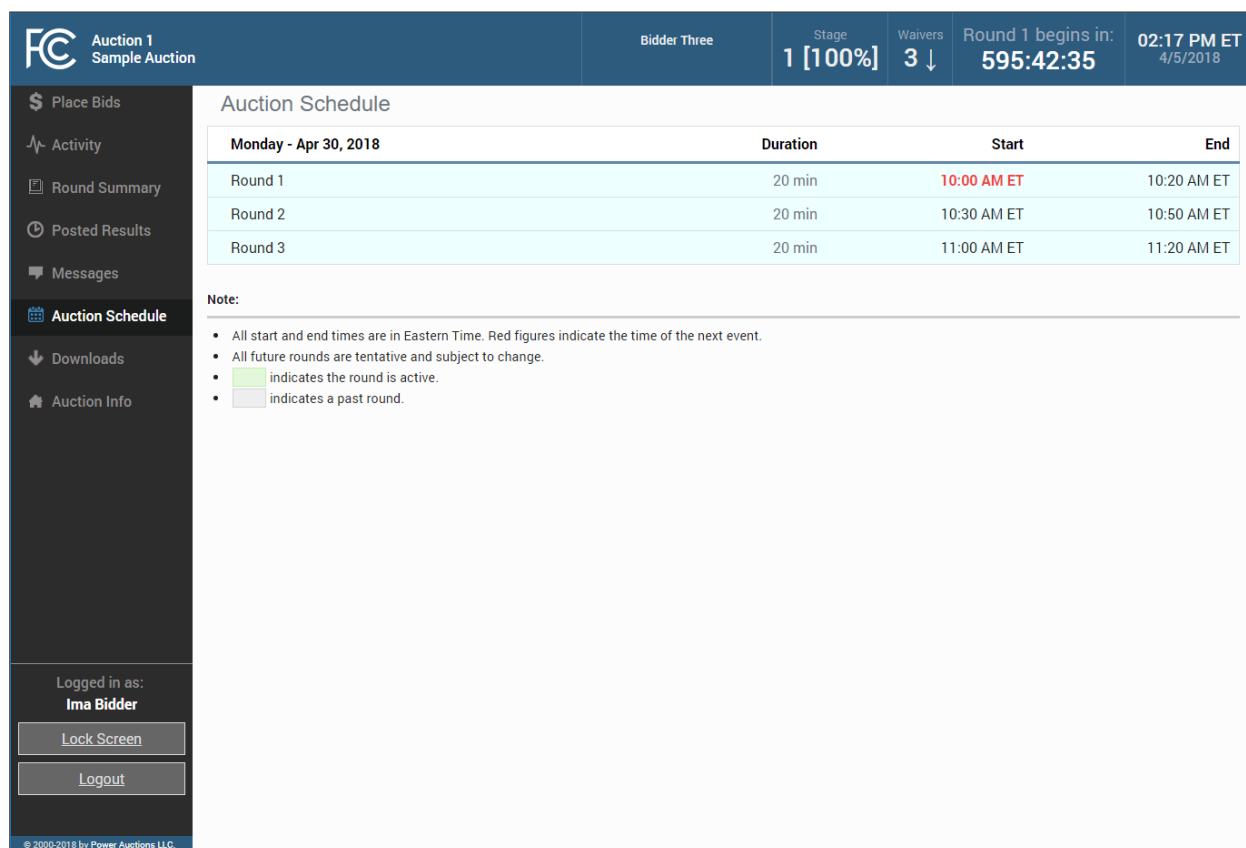
 *The data and the number of rounds displayed do not indicate the expected number of rounds in the auction; additional rounds will be displayed as the auction progresses.*

Figure 9: Auction Schedule screen



FC Auction 1 Sample Auction Bidder Three Stage: 1 [100%] Waivers: 3 ↓ Round 1 begins in: 595:42:35 02:17 PM ET 4/5/2018

Auction Schedule

Monday - Apr 30, 2018	Duration	Start	End
Round 1	20 min	10:00 AM ET	10:20 AM ET
Round 2	20 min	10:30 AM ET	10:50 AM ET
Round 3	20 min	11:00 AM ET	11:20 AM ET

Note:

- All start and end times are in Eastern Time. Red figures indicate the time of the next event.
- All future rounds are tentative and subject to change.
- indicates the round is active.
- indicates a past round.

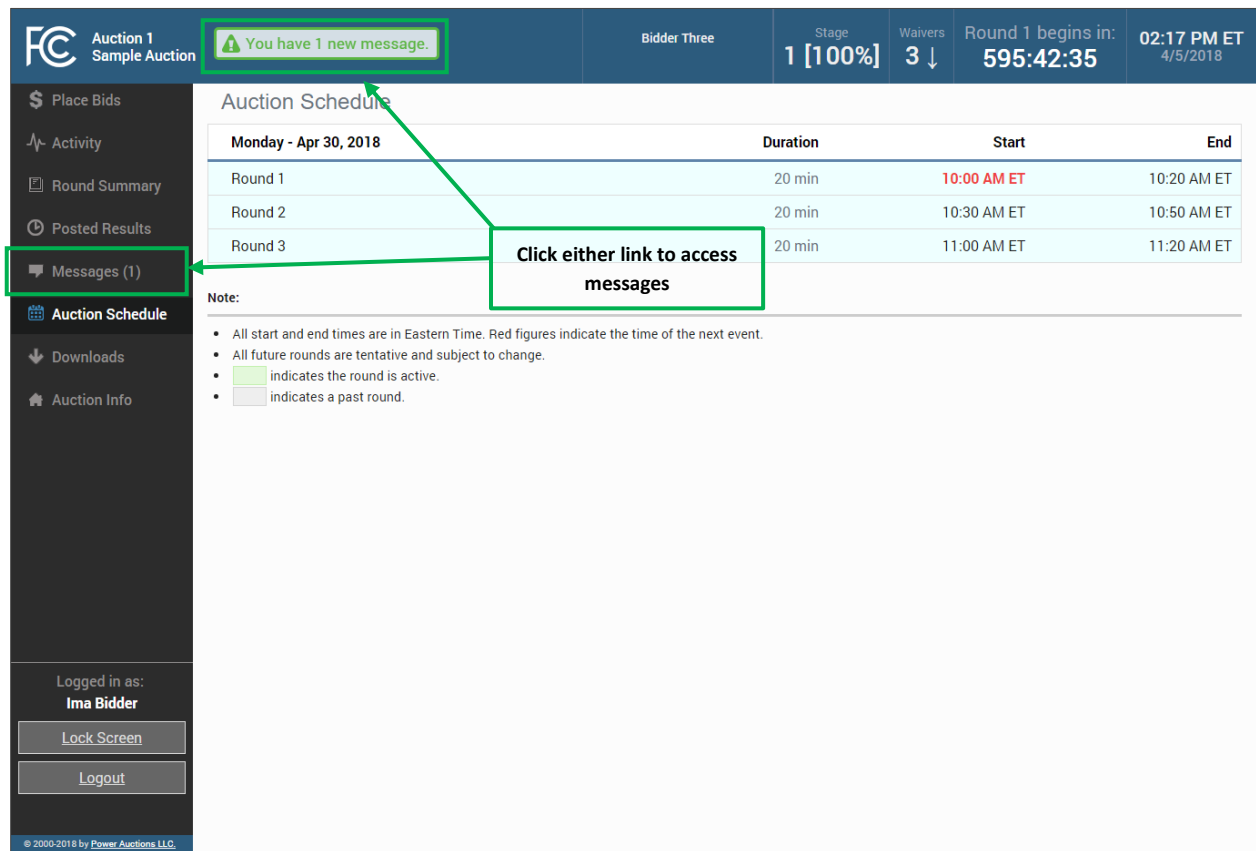
Logged in as: **Ima Bidder**
 Lock Screen Logout

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6. Announcements and Conversations

On the Messages screen you can read announcements posted by the FCC and a bidder can communicate with the FCC by sending messages to and receiving responses from the FCC that are visible only to the bidder. If you have any unread announcements or conversations, the total number of unread messages is indicated in parentheses next to the Messages link on the navigation bar or in a pop-up notification in the blue bar as shown in Figure 10.

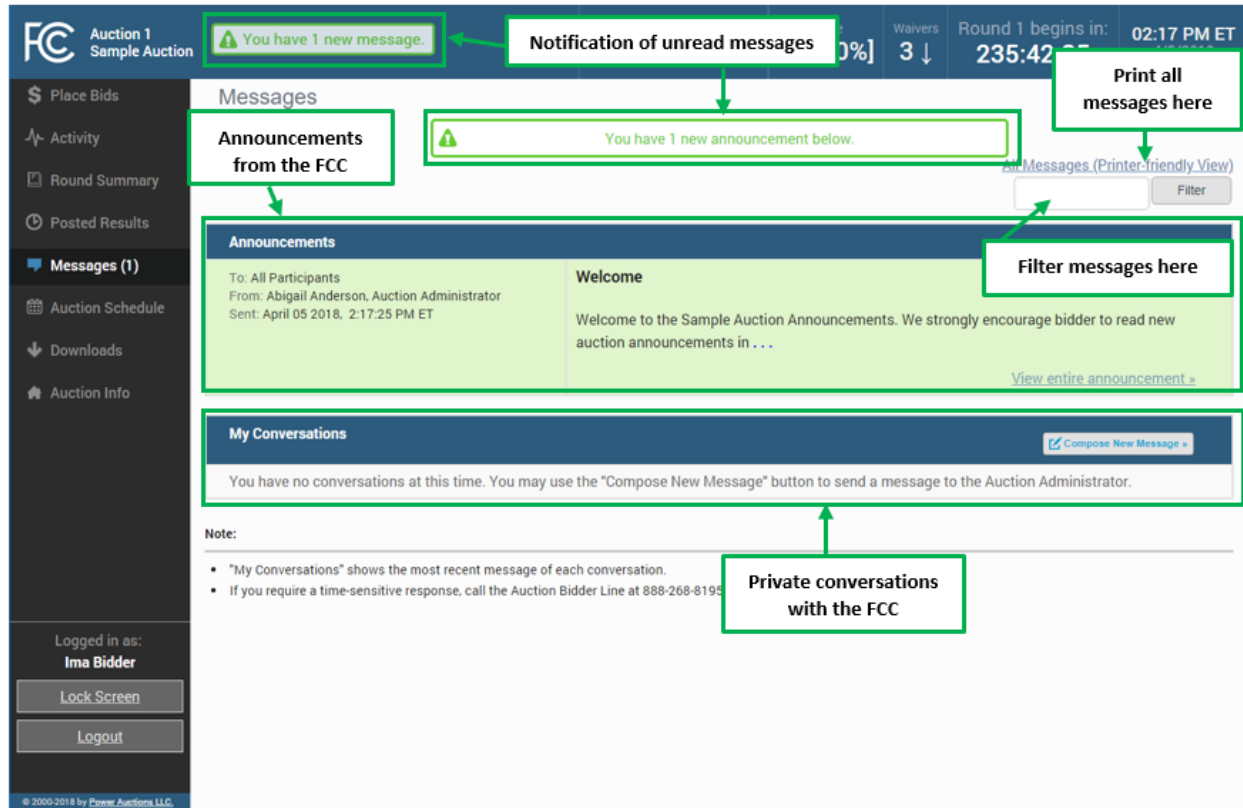
Figure 10: Notification of new message



To read an announcement, send a message, or read a response from the FCC, click on the [Messages](#) link on the navigation bar. The Messages screen, as shown in Figure 11, will open, displaying all announcements and conversations, abbreviated where necessary, in reverse chronological order.

If any of the announcements or messages shown on the screen are being displayed for the first time, a summary box will display at the top of the screen indicating the number of new announcements or messages.

Figure 11: Messages screen



Any unread message is highlighted in green. In order to read a message, you will need to click on the relevant [View entire announcement »](#) or [View entire conversation / Respond »](#) links.

After an unread announcement or conversation has been opened, the number next to the [Messages](#) link will decrease accordingly. The number will not decrease until the [View entire announcement »](#) or [View entire conversation / Respond »](#) link has been clicked for the unread message. The notifications at the top of the screen will disappear once all messages have been opened.

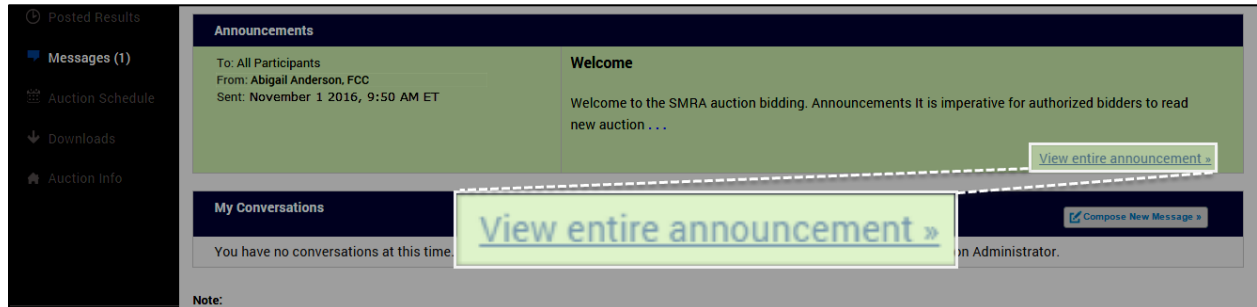
✍ Whenever you see an indication that a message is unread, you should go to the Messages screen to open and read the message.

At the top right-hand side of the screen, a filter allows you to find messages containing particular words. You can view all of the bidder’s messages by clicking on the [All Messages](#) link at the top right, above the filter. This page can then be printed using the browser’s print function.

6.1. Announcements from the FCC

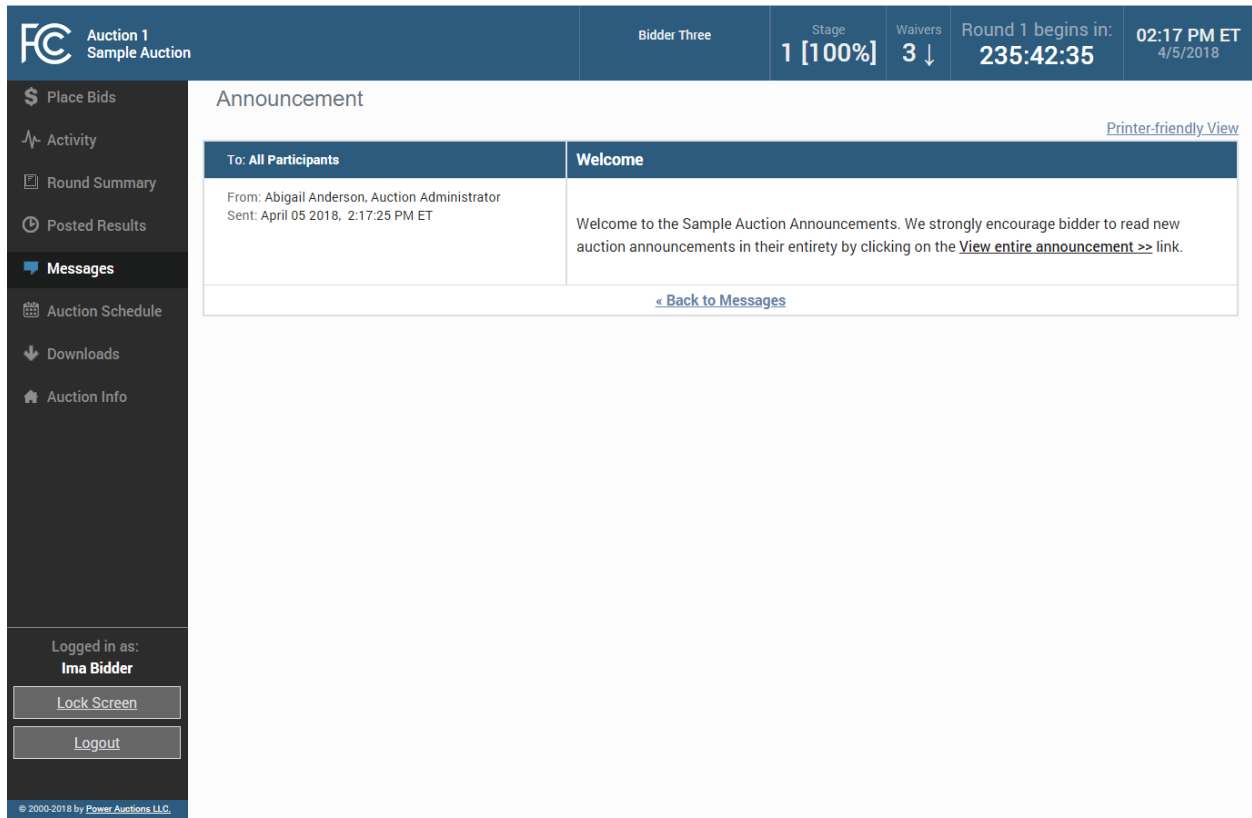
Announcements contain important bidder information, such as changes in the bidding schedule or the suspension of bidding due to unforeseen circumstances. The Message screen will only show the top portion of an announcement. To view the entire text of an announcement you must open the announcement by clicking on the [Messages](#) link on the navigation bar and then click on the [View entire announcement »](#) link for the announcement you wish to read, as shown in Figure 12.

Figure 12: View entire announcement link




Clicking on the [View entire announcement »](#) link loads an Announcement screen which displays the full text of the announcement as shown in Figure 13. To close the announcement and return to the Messages screen, click the [« Back to Messages](#) link.

Figure 13: An open announcement



6.2. Conversations with the FCC

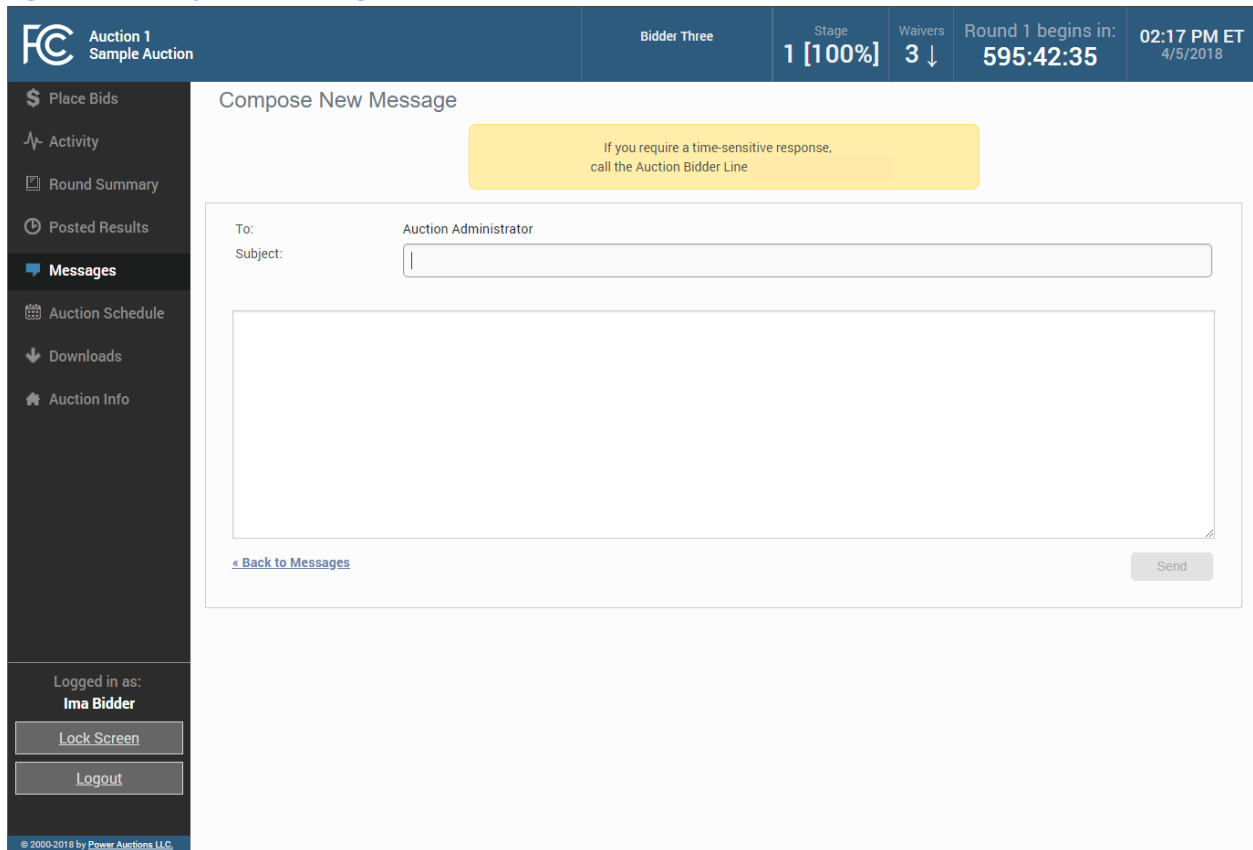
You can communicate with the FCC through ABS. A message from a user is associated with a bidder’s FRN and the authorized bidder who sent the message. Only authorized bidders for a bidder can see such messages.

 *For time-sensitive issues, users should call the Auction Bidder Line telephone number provided with your registration materials.*

To compose a new message to the FCC, click **Compose New Message »** in the My Conversations section of the Messages screen, as shown in Figure 11 above.

To compose a message, enter the subject and content of the message in the relevant fields as shown in Figure 14 below. When cutting and pasting a message it is necessary to insert a space somewhere on the page before being able to send the message. Click **Send** to send the message. To cancel an unsent message, click on the **<< Back to Messages** link and return to the Messages screen.

Figure 14: Compose a message



A sent message will appear as a new conversation in the My Conversations section of the Messages screen. The FCC may reply by sending an electronic message or by calling the contact person on the phone. If there is an electronic reply from the FCC, the reply will be added to that conversation, as demonstrated in Figure 15.

As with announcements, new messages are highlighted in green on the Messages screen until they are read. Only the most recent message of a conversation is shown on the Messages screen, as illustrated in Figure 14. To view the complete message and all messages in a conversation, click on the [View entire conversation / Respond »](#) link for that conversation. Click on the [« Back to Messages](#) link to return to the messages, or click on the [Respond To This Conversation](#) button to add a further message to the same conversation.

Figure 15: A response to a conversation initiated by an authorized bidder

The screenshot displays the user interface for an auction. At the top, a dark blue header contains the following information: 'Auction 1 Sample Auction' with a green notification box stating 'You have 1 new message.'; 'Bidder Three'; 'Stage 1 [100%]'; 'Wavers 3' with a downward arrow; 'Round 1 begins in: 235:42:35'; and the time '02:17 PM ET 4/5/2018'. On the left, a vertical sidebar lists navigation options: 'Place Bids', 'Activity', 'Round Summary', 'Posted Results', 'Messages (1)', 'Auction Schedule', 'Downloads', and 'Auction Info'. The main content area is titled 'Messages' and features a green notification box: 'You have 1 new/updated conversation below.' Below this, there is a search bar and a 'Filter' button. The 'Announcements' section shows a 'Welcome' message from the Auction Administrator, dated April 05 2018, 2:17:25 PM ET. The 'My Conversations' section shows a 'Sample Message' from the Auction Administrator, dated April 05 2018, 2:17:25 PM ET, with a '(1 New)' indicator. A 'Note' section at the bottom provides instructions: 'My Conversations' shows the most recent message of each conversation, and users should call the Auction Bidder Line at 888-268-8195 for time-sensitive responses. The footer includes '© 2000-2018 by Power Auctions LLC'.

View all announcements received and all communications with the auction administrator on a single page by clicking on 'All Messages'. This page can then be printed using the browser's print function.

If you are in the middle of writing a message as the round ends and the screen greys out, click on the **Close without refreshing** button on the pop-up to finish writing and sending the message without losing it.

7. Bidding Functions

7.1. Layout and Functionality of the Place Bids Screen

Users conduct all bidding activities through the Place Bids screen, which is accessed from the navigation bar on the left. The layout of the Place Bids screen is broken into four sections (Figure 16).

- Commitment and Activity
- Action Buttons
- Filters
- Items bidder is eligible to bid on

Figure 16: Layout of Place Bids screen

The screenshot shows the 'Place Bids' interface. At the top, a status bar displays 'Bidder Three', 'Stage 1 [100%]', 'Waivers 3 ↓', 'Round 1 begins in: 595:42:35', and '02:17 PM ET 4/5/2018'. The main content area is divided into four sections highlighted by green boxes and labeled on the right:

- Commitment and Activity Status:** Shows 'Commitment \$0', 'Activity 0', and 'Requirement 1,750'. It also displays 'Eligibility 1,750' and a 'Cannot submit' button. A red message states: 'An automatic waiver will be applied. Reduce eligibility'.
- Action buttons:** Includes 'Add to watchlist', 'Remove from watchlist', 'Place minimum bid', 'Remove bids', and 'Clear unsubmitted bids'.
- Filters:** A row of filter boxes for 'Permit', 'Description', 'Bidding Units', 'State', 'Channel', 'PW Bidder', and 'Place Bid'.
- Licenses bidder is eligible to bid on:** A table listing items:

Permit	Description	Bidding Units	State	Channel	PW Bidder	Place Bid
MM-GEN001	Alabama 1	750	AL	284	-	No Bid
MM-GEN002	Alaska 1	1,000	AK	286	-	No Bid

At the bottom, a 'Note' states: 'PW Bidder information is not available. You will be able to see PW Bidders once Round 1 has been posted.'

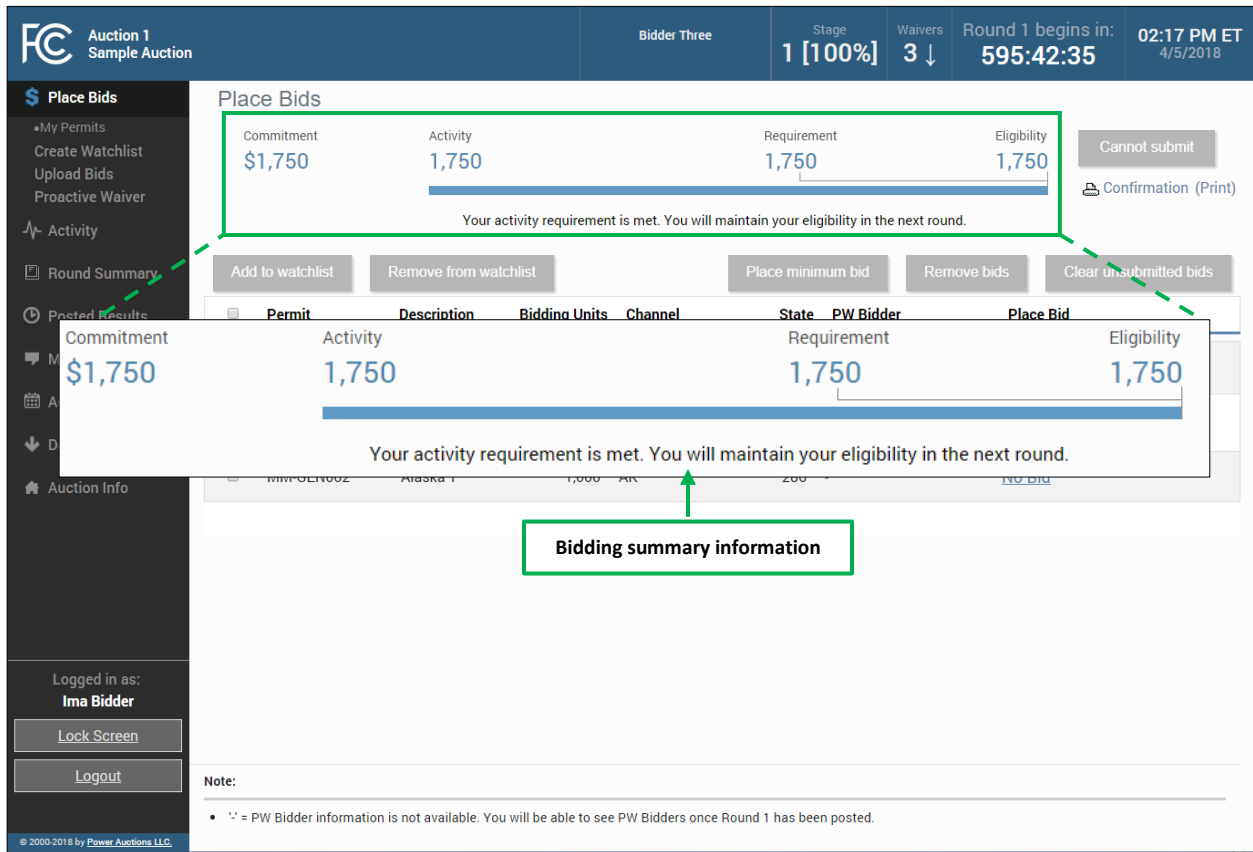
The Commitment and Activity Status bar is located at the top of the Place Bids screen (Figure 17). The status bar provides a summary about your bidding status including:

- Requirement – The minimum number of bidding units you must be active on in the round. If you fail to satisfy your required activity, ABS will apply an automatic waiver on your behalf if you

have any waivers remaining; otherwise, it will permanently reduce your eligibility, possibly curtailing or eliminating your ability to place additional bids in the auction.

- **Activity** – The total number of bidding units of your active bids (new bids placed in the current round and provisionally winning bids from the previous round).
- **Eligibility** – The maximum number of bidding units on which you are permitted to bid and hold provisionally winning bids on during the round. The initial value of your eligibility is determined by the amount of upfront payment you submitted, but will not exceed the sum of bidding units associated with the total number of items selected on your FCC Form 175 application. Note that initial eligibility is calculated differently for qualified bidders that have previously been in default on a Commission license or delinquent on a non-tax debt owed to a Federal agency.
- **Commitment/Net Commitment** – Whenever you successfully submit bids in the system, the system updates your requested commitment and submitted activity numbers on the screen. If a bidder has claimed a bidding credit, the commitment reflects the net commitment (taking bidding credits into account) rather than the gross commitment. The activity bar changes color as bids are placed to provide a visual clue about the status of bids in relation to the activity requirement.

Figure 17: Commitment and Activity status bar



The actions you can take on the Place Bids screen are highlighted in Figure 18 below.

- Create and manage watchlists
- Upload bids – Upload Bids opens a dialogue box that allows you to upload a bid file rather than entering and submitting bids through the user interface (see Section 7.5).
- Apply a Proactive Waiver
- View waiver status or Reduce eligibility
- Apply bidding actions
- Submit Bids – The **Submit Bids** button allows you to submit the bids you entered through the user interface.

Figure 18: Action buttons

The screenshot shows the 'Place Bids' interface with several callouts:

- Click to submit your bid here:** Points to the 'Submit Bids' button.
- View waiver status here. Click link to reduce eligibility (or use waiver):** Points to the 'Reduce eligibility' link.
- Apply bidding actions here:** Points to the 'Place minimum bid' and 'Remove bids' buttons.
- Select bids via upload file here:** Points to the 'Upload Bids' button in the sidebar.
- Create and manage watchlists here:** Points to the 'Create Watchlist' button in the sidebar.
- Click to apply a proactive waiver:** Points to the 'Proactive Waiver' button in the sidebar.

The interface includes a top navigation bar with 'Auction 1 Sample Auction', 'Bidder Three', 'Round 1', 'Stage 1 [100%]', 'Waivers 3', and 'Round 1 ends in: 19:58 10:00 AM ET 4/30/2018'. The main content area shows a progress bar for 'Requirement' (1,750) and 'Eligibility' (1,750). Below this is a table of items eligible to bid on:

Permit	Description	Bidding Units	Channel	State	PW Bidder	Place Bid
MM-GEN001	Alabama 1	750	AL	284	-	No Bid
MM-GEN002	Alaska 1	1,000	AK	286	-	No Bid

The Place Bids screen displays all items a bidder is eligible to bid on based on the items selected on the bidder’s FCC Form 175.

Figure 19: Items eligible to bid on

The screenshot shows the 'Place Bids' interface with the following details:

- Commitment:** \$0
- Activity:** 0
- Requirement:** 1,750
- Eligibility:** 1,750
- Submit Bids** button
- Confirmation (Print)** button
- Message:** An automatic waiver will be applied. [Reduce eligibility](#)
- Buttons:** Add to watchlist, Remove from watchlist, Place minimum bid, Remove bids, Clear unsubmitted bids
- Table of items eligible to bid on:**

Permit	Description	Bidding Units	Channel	State	PW Bidder	Place Bid
MM-GEN001	Alabama 1	750	AL	284	-	No Bid
MM-GEN002	Alaska 1	1,000	AK	286	-	No Bid

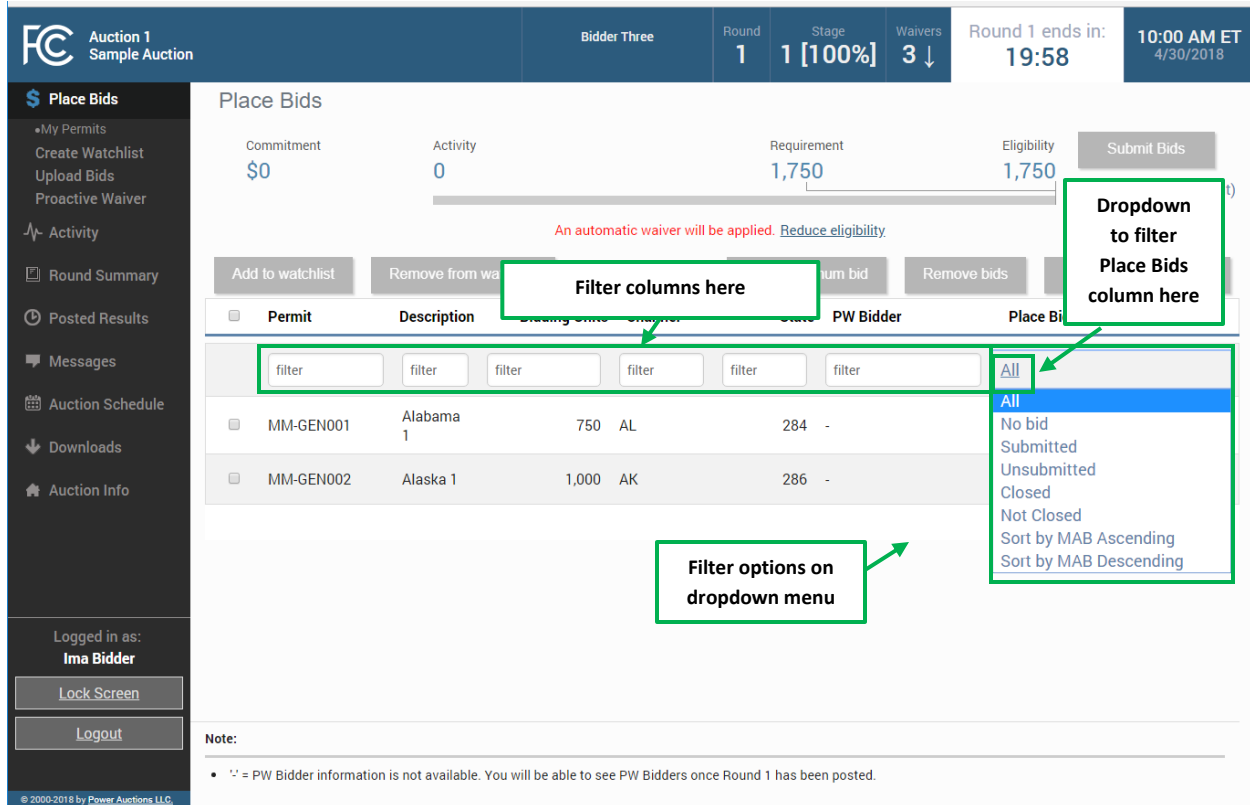
Note:

- ⚠ = PW Bidder information is not available. You will be able to see PW Bidders once Round 1 has been posted.

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To filter the list of items, as shown in Figure 20, use the filter box under the column header to enter filter criteria. Items matching your filter criteria are displayed. To filter the place bids column, click All under Place Bid and select an option from the drop-down menu.

Figure 20: Filters



7.2. Selecting Bids

To place a bid on an item, click Place Bids on the navigation bar.

There are several ways to select bids for submission:

- click on No Bid and select the desired bid amount for an item from the drop-down box shown in Figure 21;
- choose the item(s) to place bids on by clicking on the box next to the item, followed by clicking Place Minimum Bid
- use watchlist to filter for items to bid on as discussed in Section 7.4.5.
- use an upload file as explained in Section 7.5.

To select a bid amount on an individual item click on **No Bid** to open the drop-down list and click on one of the bid amounts as shown in Figure 21. Each drop-down list will have all available bid amount options, the first of which is the minimum acceptable bid (MAB). If the bidder has a bidding credit, the gross price is displayed, followed by the [net price]. Once your bid amounts have been selected, click **Submit Bids**.

After round 1, items for which you are the Provisionally Winning (PW) Bidder have the bidder’s name in the PW Bidder column and Stay in the Place Bids column, followed by the provisionally winning bid (PWB) amount. Items for which another bidder has the PWB have the name of the bidder in the PW Bidder column and No Bid in the Place Bid column. Items with no present PWB read FCC-Held and No Bid in the respective columns.

Figure 21: Choosing bid options via drop-down menu

The screenshot shows the 'Place Bids' interface for 'Auction 1 Sample Auction'. At the top, it displays 'Bidder Three', 'Round 1', 'Stage 1 [100%]', 'Waivers 3', and 'Round 1 ends in: 19:58' on '4/30/2018'. The main area shows a table with columns: Permit, Description, Bidding Units, State, Channel, PW Bidder, and Place Bid. Two items are listed: MM-GEN001 (Alabama 1) and MM-GEN002 (Alaska 1). A dropdown menu is open for the 'Place Bid' column of MM-GEN002, showing options from 'No Bid' to '\$1,070'. A green box labeled 'Select bid amount' with an arrow points to the '\$910' option. The interface also includes a sidebar with navigation options like 'Place Bids', 'Activity', and 'Round Summary', and a bottom note: 'PW Bidder information is not available. You will be able to see PW Bidders once Round 1 has been posted.'

In order to place a minimum bid on a group of items, choose the items by clicking on the box next to the item ID and then click **Place Minimum Bid**. Click **Submit Bids** to complete your bid submission as shown in Figure 22.

*Note: if an authorized bidder is in the process of placing bids when the round ends and has not clicked the submit bids button, those bids will not be submitted. You must click the **Submit Bids** button before the round ends for that bid to be submitted. Therefore, it is strongly recommended that bids are submitted well in advance of the ending time of the round.*

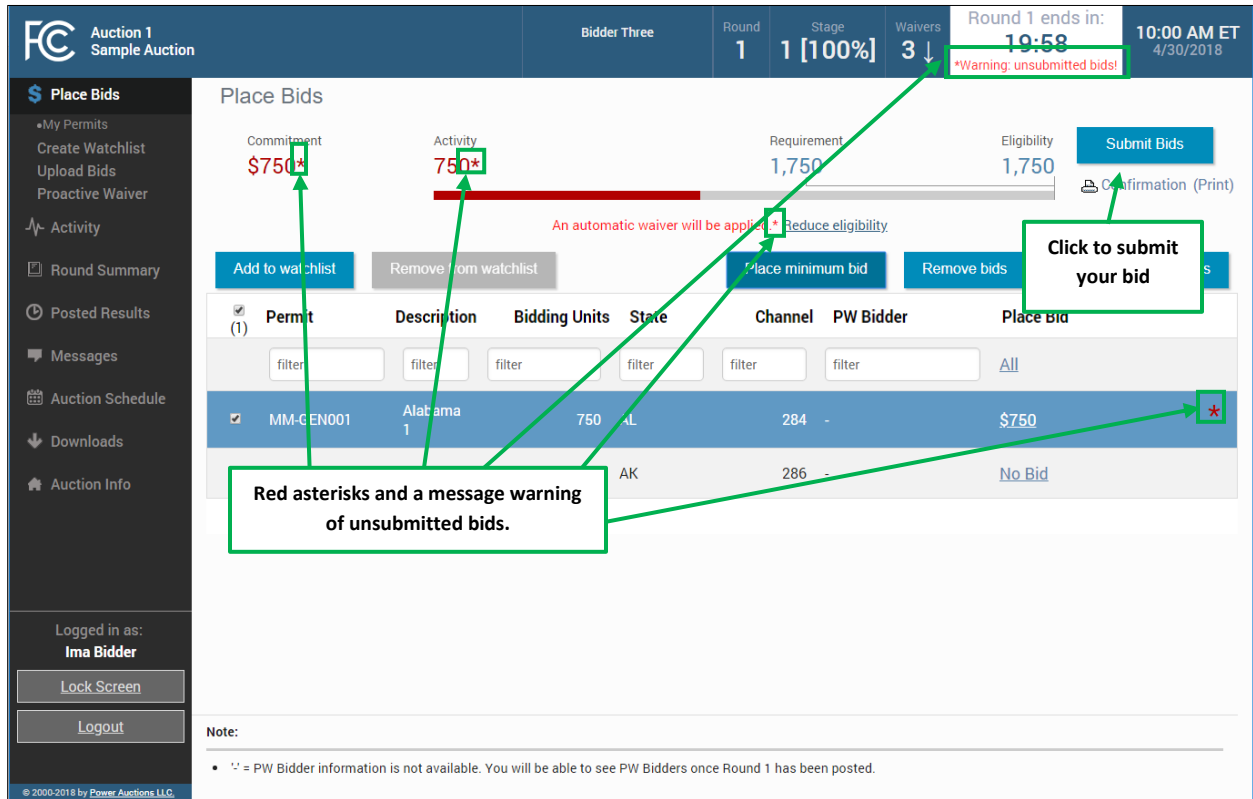
Figure 22: Selecting Bids by Selection Box

7.3. Submitting Bids


Once bid amounts have been specified, submit them by clicking **Submit Bids**. Only bids that have been submitted will be processed by the system.

While bids are still unsubmitted, there is a warning under the countdown timer: ***Warning: unsubmitted Bids!** A red asterisk “*” on the right side of the item field and next to the Net Commitment and Activity numbers appears, indicating that all numbers are provisional and subject to the selected bids being submitted. Leaving the Place Bids screen without submitting selected bids, will prompt a pop-up warning that bids have not been submitted. If you then choose to leave the screen, any bids that you entered but did not submit will remain as unsubmitted bids and will not be lost. You will still need to submit them if you want them to be processed by the system.

Figure 23: Unsubmitted bid warnings

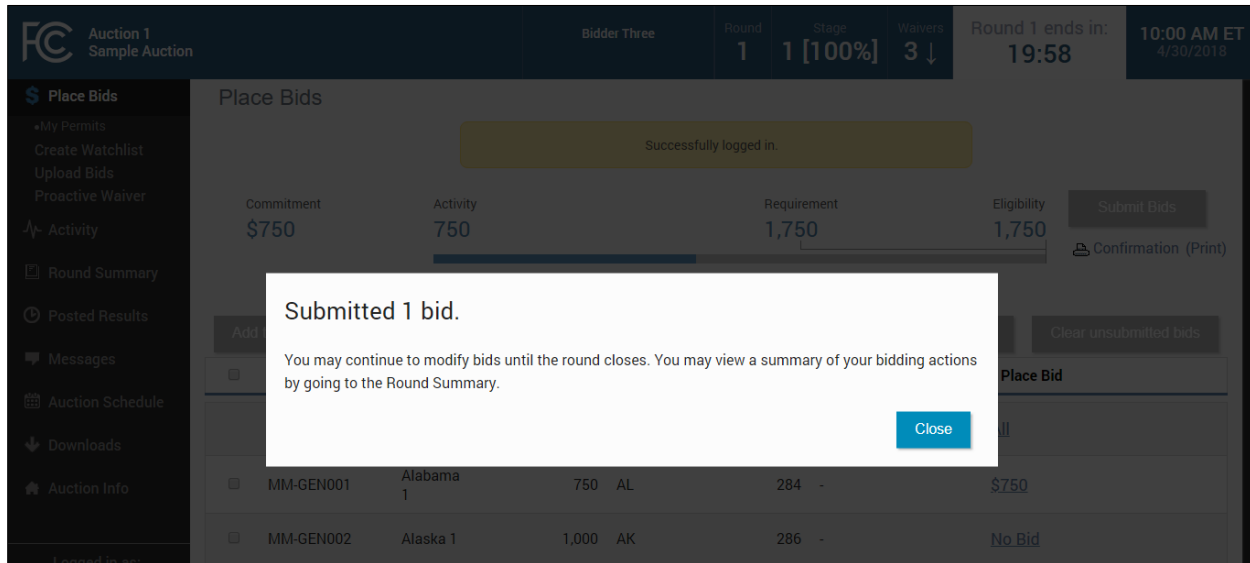


After bids are submitted, the system automatically updates the activity bar to reflect the number of bidding units (Activity) and dollar amount (Commitment/Net Commitment) associated with your bids.

 *Bids that would cause your activity to exceed your eligibility cannot be submitted.*

A pop-up message confirms bidder actions when the **Submit Bids** button is clicked as shown in Figure 24.

Figure 24: Confirmation pop-up



7.4. Watchlist

A Watchlist is a grouping of items that are available for you to view and bid on, if eligible. Watchlists are useful ways for you, as a bidder, to divide the items into small, easy to manage groups, making it easier to navigate a long list of items. Items can appear in multiple watchlists, allowing you to group them together in ways that best meet your needs.

ABS automatically sets up a default watchlist of all of your items, and you can set up additional watchlists of items of your own choosing. The system also provides a number of system-created watchlists after Round 1.

You may create and view custom watchlists via the Place Bids screen as soon as ABS is available. Once you have created a watchlist, you can add items to it, remove items from it or delete the watchlist entirely. Note: while each authorized bidder may create a watchlist, all watchlists are shared amongst the authorized bidders for a bidder. Additionally, there is a limit of 25 custom watchlists that can exist at one time for a bidder.

To use a watchlist in selecting bids, click on the desired watchlist. This will bring up only the contained items to be bid on.

7.4.1. Create Watchlist

From the Place Bids screen, you may create a new custom watchlist. Select the checkbox next to the items that you would like to be part of the custom watchlist. Next, click on [Create Watchlist](#) as shown in Figure 25.

Figure 25: Create Watchlist

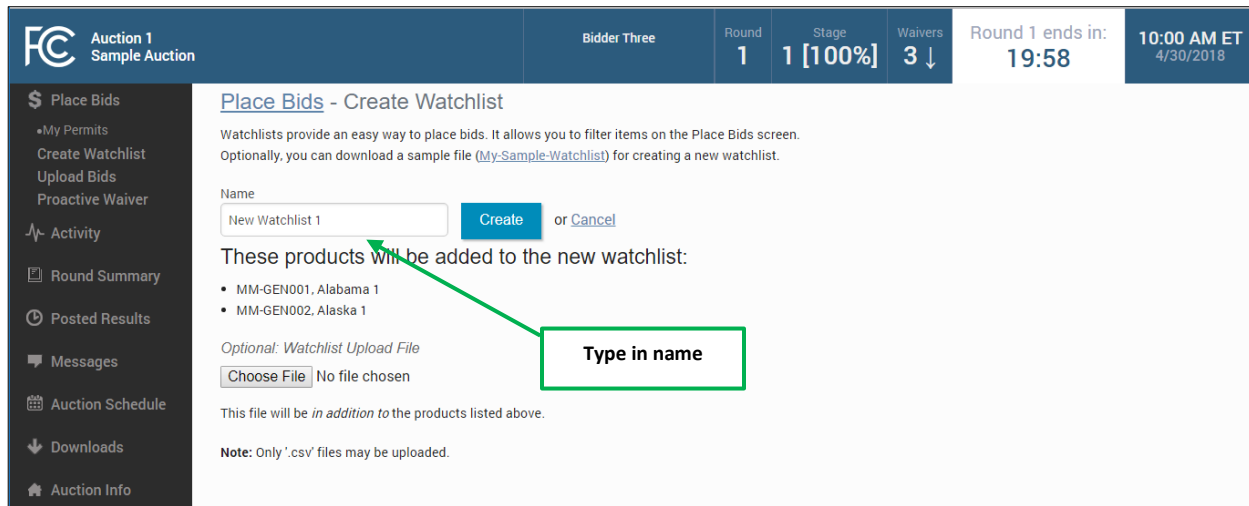
The screenshot shows the 'Place Bids' interface for 'Auction 1 Sample Auction'. At the top, it displays 'Bidder Three', 'Round 1', 'Stage 1 [100%]', 'Waivers 3', and 'Round 1 ends in: 19:58' on '4/30/2018'. The main area shows a progress bar for 'Requirement' (1,750) and 'Eligibility' (1,750). Below this is a table of permits:


Permit	Description	Bidding Units	State	Channel	PW Bidder	Place Bid	
<input checked="" type="checkbox"/>	MM-GEN001	Alabama 1	750	AL	284	-	\$750
<input checked="" type="checkbox"/>	MM-GEN002	Alaska 1	1,000	AK	286	-	No Bid

Annotations in the image include a green box labeled '1. Select items' pointing to the first row of the table, and another green box labeled '2. Click to create watchlist' pointing to the 'Add to watchlist' button.

A screen appears that requires you to type a name into the name field and click **Create** as shown in Figure 26. Note: each custom watchlist must have a unique name. At any point, you may click the **Cancel** button to return to the Place Bids screen without creating a new custom watchlist.

Figure 26: Name Watchlist

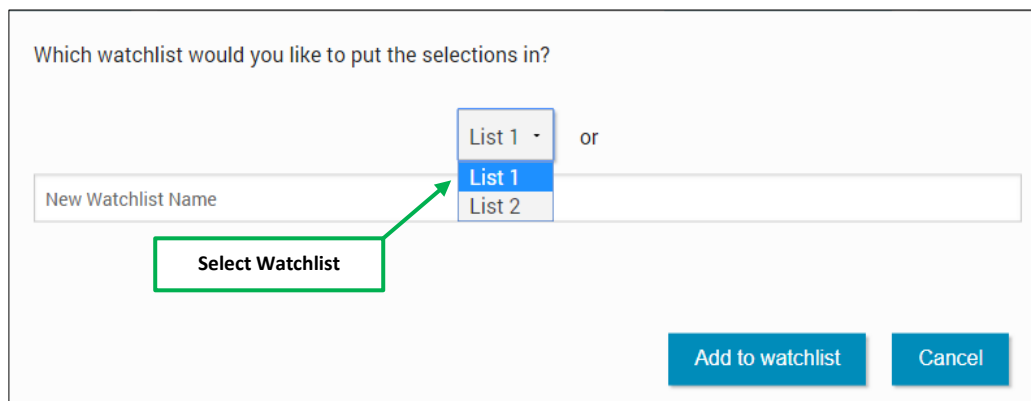


 Watchlist names may only contain letters, numbers and spaces.

7.4.2. Add Items to an Existing Watchlist

Working with existing watchlists you can easily add items to another watchlist. To do this, select the items to be included in the watchlist by clicking the box next to them and then click **Add to watchlist**. You must now specify the watchlist using the watchlist pop-up as shown in Figure 27. If the watchlist already exists, select its name from the drop-down. If the watchlist does not yet exist, type in the name in the New Watchlist Name field. Then click **Add to watchlist**.

Figure 27: Watchlist pop-up

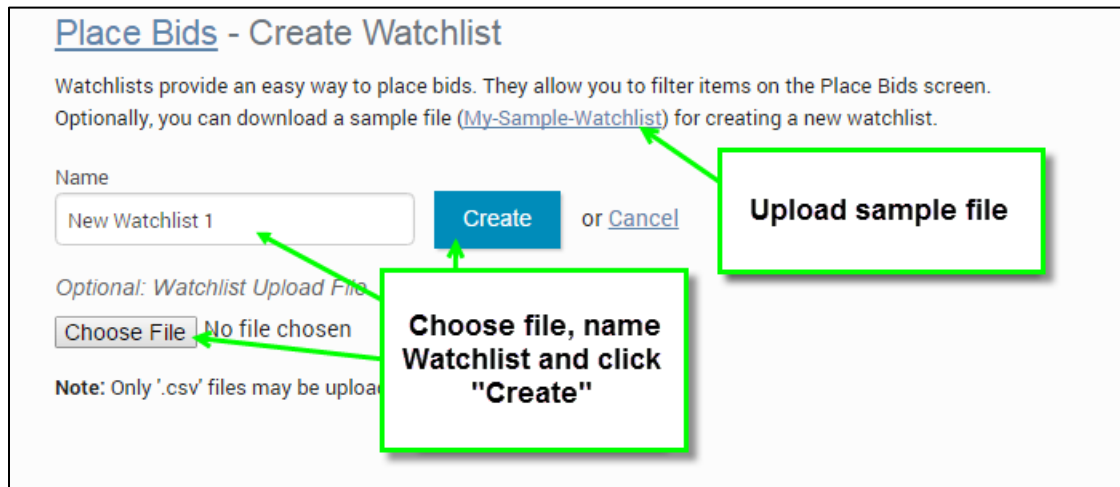


7.4.3. Create Watchlist by File Upload

Another way to create a custom watchlist is by using the file upload function. This allows you to download a sample file, modify it to reflect your list of items and upload it into the system.

First click Create Watchlist on the navigation bar. You may download a sample .csv file from the screen, modify it to include the desired items, and save it to your computer. Then click on the **Choose File** button, select your file, and click Open. After uploading the watchlist, type a name into the name field, and click the **Create** button.

Figure 28: Upload Watchlist



7.4.3.1. File Structure

A bidder can download a sample file for creating a new watchlist. The sample watchlist .csv file uses the file format specified below, and it will contain only the items that the bidder is eligible to bid on. Note that the additional item_description field and any additional fields the bidder includes will be ignored during the upload process.

Sample File:

No column heading (Item)	No column heading (Description)
MM-FM1043-A	Markham, TX
MM-FM598-A	Freer, TX

Specifications:

Column (no column heading)	Description	Data Type	Examples/Notes
item	Uniquely identifies the item to watch	String {1..20}	MM-FM598-A
item_description	Item description (for bidder information purposes only)	String {1..50}	Freer, TX

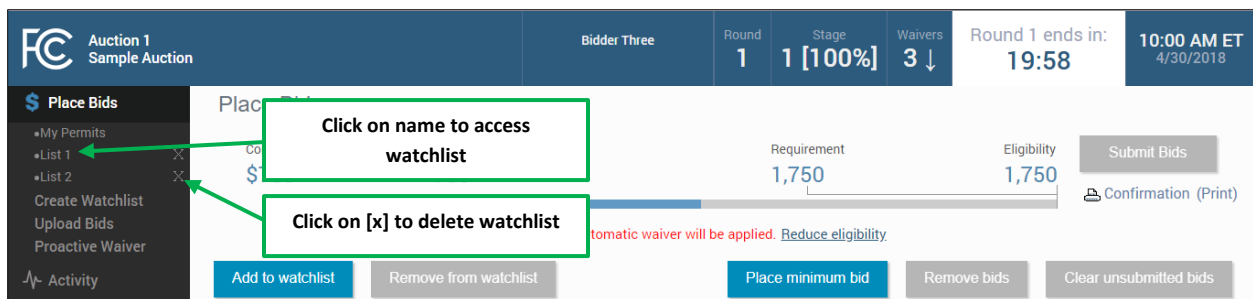
7.4.4. Viewing and Editing Watchlists

When you return to the Place Bids page, your watchlist will be listed on the navigation bar on the left side of the page. To view a watchlist click on the name under Place Bids on the navigation bar (see Figure 29). This filters for items in that watchlist to display on the Place Bids screen and makes it more convenient for placing bids on a subset of items.

Items may be added to a watchlist by following the procedure outlined above in Section 7.4.2. Remove items from a watchlist by selecting them and clicking **Remove from watchlist**. A pop-up confirms the removal. A bidder can edit only the watchlists it created.

To delete a watchlist entirely, click the [x] next to the name of the watchlist you wish to delete. A pop-up message appears to confirm that you wish to delete the watchlist. Click **Remove watchlist** to confirm. System-created watchlists cannot be removed or edited.

Figure 29: Viewing and editing watchlists



7.4.5. Filtering for a Watchlist

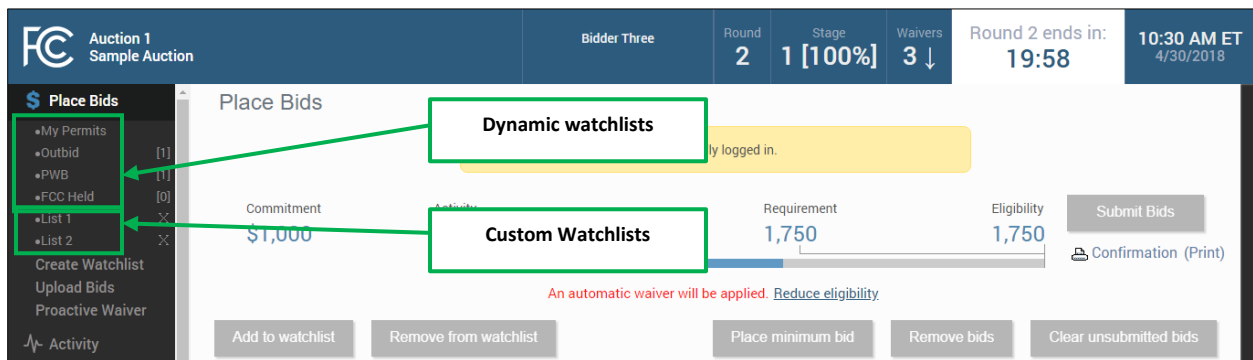
Starting with Round 2, the system creates dynamic watchlists that are helpful tools for selecting the items you want to bid on in later rounds. Similar to the custom watchlists, the dynamic watchlists group items and can be used to filter for that group. Numbers in parentheses on the Navigation Bar show how many items are contained in each dynamic watchlist.

Table 2: System-defined watchlists

Watchlists	Descriptions
My Permits	All permits the bidder is eligible to bid on based on the permits it selected on its FCC Form 175
Outbid	Permits for which the bidder submitted a bid in the previous round, but for which another bidder holds the PWB
PWB	Permits for which the bidder holds the PWB
FCC Held	Permits for which there is no PWB

By default, the system displays the system-defined “My Permits” watchlist on the Place Bids screen. If you want to select a different watchlist, click on the desired watchlist on the Navigation Bar.

Figure 30: Place Bids – filtering by watchlist

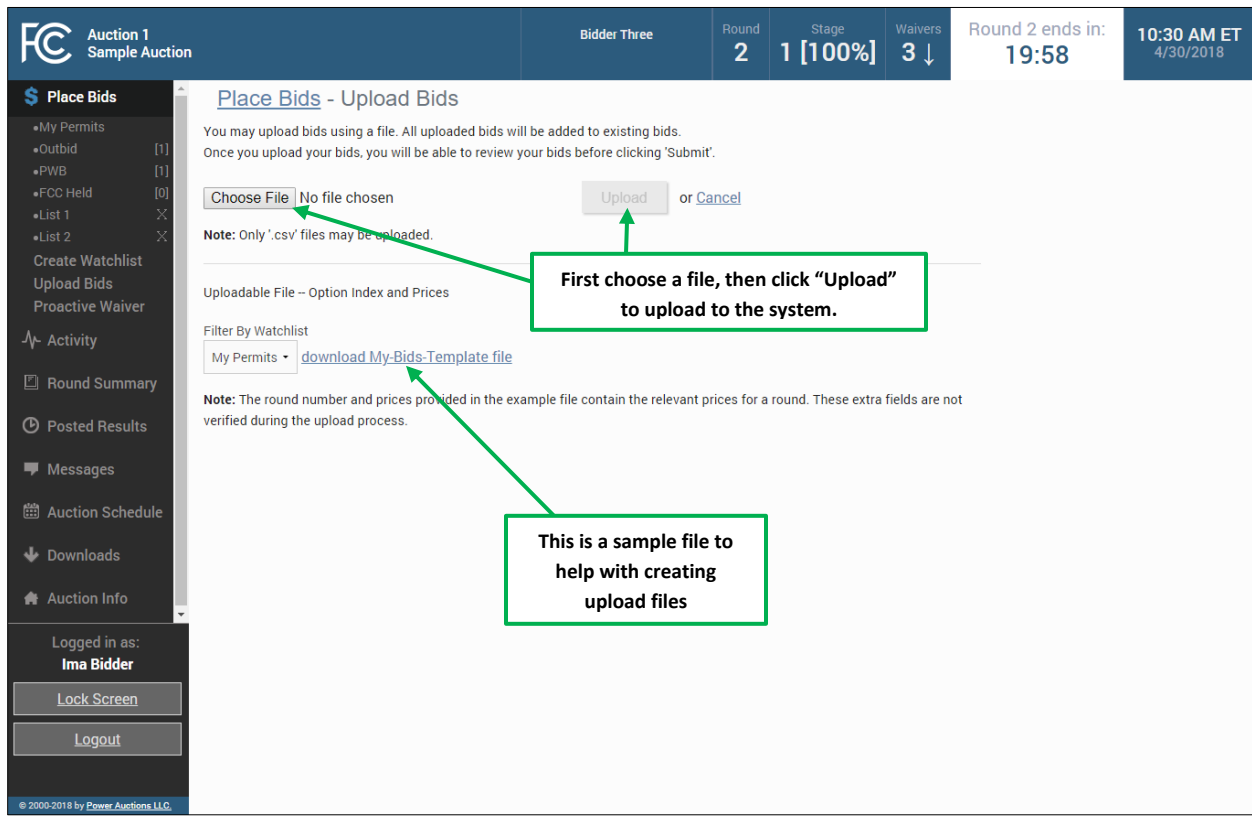


7.5. Upload Bids

The Upload Bids function provides an alternative to selecting items and bid amounts manually; this allows you to download a sample file, modify it to reflect your bids and upload it into the system.

To access the Upload Bids page, click [Upload Bids](#) on the navigation bar. This opens up a separate screen to upload pre-configured files.

Figure 31: Upload Bids



Download a sample .csv file (see Section 7.5.1 for the file format) and modify it to include your bid selections. Specify your upload file by clicking Choose File and then selecting Upload. After the file has been uploaded, you must return to the Place Bids screen to review and submit your bids.

*Note that, if an authorized bidder is in the process of uploading bids when the round end and has not clicked the submit bids button, **those bids will not be submitted.** You **must** click the **Submit Bids** button before the round ends **for that bid to be submitted.***

An Upload Bids Summary, as shown in Figure 32, confirms the uploaded bids. If the system has found no errors in the upload file, it will show an Upload Bids Summary screen. This page displays a summary of the type of bids that were uploaded.

Figure 32: Upload Bids Summary

Place Bids - Upload Bids Summary

Your upload was successful.
You must submit your bids on the [Place Bids](#) screen.

Breakdown of New Bids:	
Minimum Acceptable Bids:	0
Bids above the Minimum Acceptable Amount:	1
Stay Bids:	1
No Bids:	0
Withdrawn Bids:	0
Commitment	\$1,910*
Net Commitment	\$1,910*

[Return to bidding screen to submit your bids](#)

Follow either link to get back to the Place Bids screen to submit your bid

If a file contains errors, the system shows an error message listing the file entries that contained errors. The upload file will need to be corrected and uploaded again.

Figure 33: Error messages for invalid upload

Place Bids - Upload Bids

Your bid was not valid.

Line 2: MM-GEN001, ""
Invalid action: [] is not a valid bid type. Options for bid type are bid, no_bid, stay.

Line 3: MM-GEN002, ""
Invalid action: [] is not a valid bid type. Options for bid type are bid, no_bid, stay.

You may upload bids using a file. All uploaded bids will be added to existing bids.
Once you upload your bids, you will be able to review your bids before clicking 'Submit'.

No file chosen or [Cancel](#)

7.5.1. File Structure

In this file, each row contains a bid for an item. The bid column needs to be modified for bid uploads. Note that for the bid upload only the first 2 columns are processed. Prices are provided for information only and cannot be modified. Information only columns are shaded pink.

Specifications:

Field	Description	DataType	Examples/Notes
item	Uniquely identifies the item to bid on	String {1..20}	Permit: "MM-FM662-C3",
bid_type	Type of bid	String ["bid"", "no_bid"", "stay"", "withdraw"]	<ul style="list-style-type: none"> • "bid" = a bid as defined by the bid_index • "no_bid" = change a bid to no bid (does not apply to a PWB). • "stay" = do not increase a PWB • "withdraw" = withdraw a PWB (only if allowed)*

Field	Description	Data Type	Examples/Notes
bid_index	Bid_option_index	Integer [0, 1-9]	<p>0 – Revert back to what the status was at the start of the round.</p> <p>1 – Minimum allowable bid</p> <p>2 – Second allowable price</p> <p>...</p> <p>9 – Ninth allowable price</p> <p>Note: "2" through "9" are dependent on how many additional bid amounts the auction is configured for.</p> <p>Null when bid_type = "no_bid", "stay", "withdraw" *</p>

*if withdrawals are allowed in the auction

Note that Microsoft Excel may replace large numbers with an abbreviated form (such as '1.55E+6'). Convert these back to 'normal' notation (by selecting a number format of 0 decimal places) before saving the file to upload.

7.6. Revising Bids and Removing Bids

As long as the round is open, a bidder may revise or remove its bid selections placed in that round.

To revise a bid, click on the bid amount and change the selection to No Bid or a different bid amount and then click **Submit bids**. To remove submitted bids, click the box next to the item, followed by **Remove bids** and then **Submit bids**. Alternatively, use the filter function of the Place Bids column to access submitted bids, followed by clicking **Remove bids** and then **Submit bids**.

Figure 34: Filter Place Bid column

To delete unsubmitted bids, use the filter in the Place Bids column drop-down to select Unsubmitted to view only your unsubmitted bids. Then click the checkbox next to the item, and then click **Clear unsubmitted bids** to remove the bids.

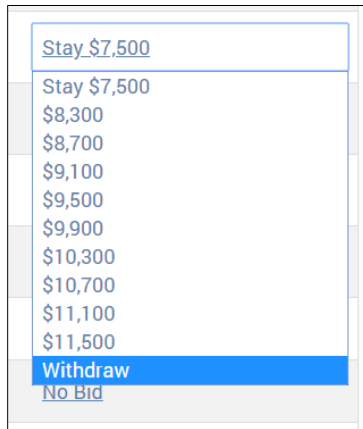
7.7. Withdraw Bids

Note this feature is not available in all auctions.

The FCC may elect to allow each bidder a specified number of rounds in which it may withdraw any or all of its current provisionally winning bids. The rounds in which a bidder makes withdrawals are at the bidder’s discretion, and a bidder may withdraw as many bids as it wishes during the round.

Items for which you are the PW Bidder will have Withdraw as one of the bidding options in the drop-down menu of the Place Bids column. To withdraw a bid(s), choose this option and click **Submit Bids**.

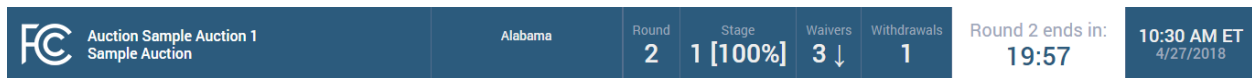
Figure 35: Withdraw option in drop-down menu



After submission, withdrawals will be indicated on the blue upper band as pending with a downward arrow next to the number of withdrawal rounds remaining.

Withdrawals may be revised or removed during the round in which the withdrawal was placed. As soon as the round has ended, withdrawals are permanent. Withdrawals may be subject to a bid withdrawal payment, as detailed in the public notice announcing the procedures for the auction.

Figure 36: Withdrawal count on blue band



If a provisionally winning bid is withdrawn, then the minimum acceptable bid in the next round will be the second highest bid submitted for that item. That amount may be less than or (in the case of tie bids) equal to the amount of the withdrawn bid. The FCC will serve as a placeholder provisionally winning bidder on the item until a new bid is submitted on that item.

7.8. Waivers

Each bidder is required to be active on a specific percentage of its current eligibility in each round of the auction. This percentage may change during the auction. If the new bids from the current round plus your PWBs satisfy the activity requirement, the activity bar goes beyond the Requirement tick mark. The note under the blue bar confirms your activity requirement has been met as shown in Figure 37.

Figure 37: Activity Requirement is met

The screenshot shows the 'Place Bids' interface for 'Auction 1 Sample Auction'. At the top, it indicates 'Bidder Three', 'Round 2', 'Stage 1 [100%]', and 'Waivers 3 ↓'. A timer shows 'Round 2 ends in: 19:58' on '4/30/2018'. The main area displays a commitment of '\$1,910'. A progress bar shows 'Activity 1,750', 'Requirement 1,750', and 'Eligibility 1,750'. A green box highlights this bar with the text: 'Your activity requirement is met. You will maintain your eligibility in the next round.' Buttons for 'Add to watchlist', 'Remove from watchlist', 'Place minimum bid', 'Remove bids', and 'Clear unsubmitted bids' are visible at the bottom.

If you are below the required activity for the round, the options are to place new bids, reduce eligibility, or use an activity rule waiver, if any are remaining. All decisions are reversible during the round but become permanent once the round has ended.

If a bidder fails to meet its activity requirement, ABS places a waiver automatically, if any are remaining for the bidder. In this case, the eligibility will stay the same in the following round. The note below the activity bar reads: “An automatic Waiver will be applied”.

Figure 38: Automatic Waiver

This section shows a detailed view of the activity requirement bar. It lists 'Commitment \$1,000', 'Activity 1,000', 'Requirement 1,750', and 'Eligibility 1,750'. A blue bar represents the current activity level, which is below the requirement. Below the bar, a red text message states: 'An automatic waiver will be applied. [Reduce eligibility](#)'.

If the bidder is using a waiver in the current round, the waiver count in the upper blue bar shows a downward arrow to indicate that the count will be reduced by one in the next round.

Figure 39: Waiver count change for next round shown on blue band

The screenshot shows the top navigation bar with 'Bidder Three', 'Round 3', 'Stage 1 [100%]', and 'Waivers 2 ↓'. A timer indicates 'Round 3 ends in: 19:58' on '4/27/2018'. The 'Waivers' section is highlighted with a green box, showing a downward arrow next to the number 2.

If no waivers remain and the activity requirement is not satisfied, ABS will permanently reduce the bidder’s eligibility based on the current activity at the close of the round.

Automatic waivers do not keep the auction open, and in the absence of bids, withdrawals (if allowed), or proactive waivers the auction may close.

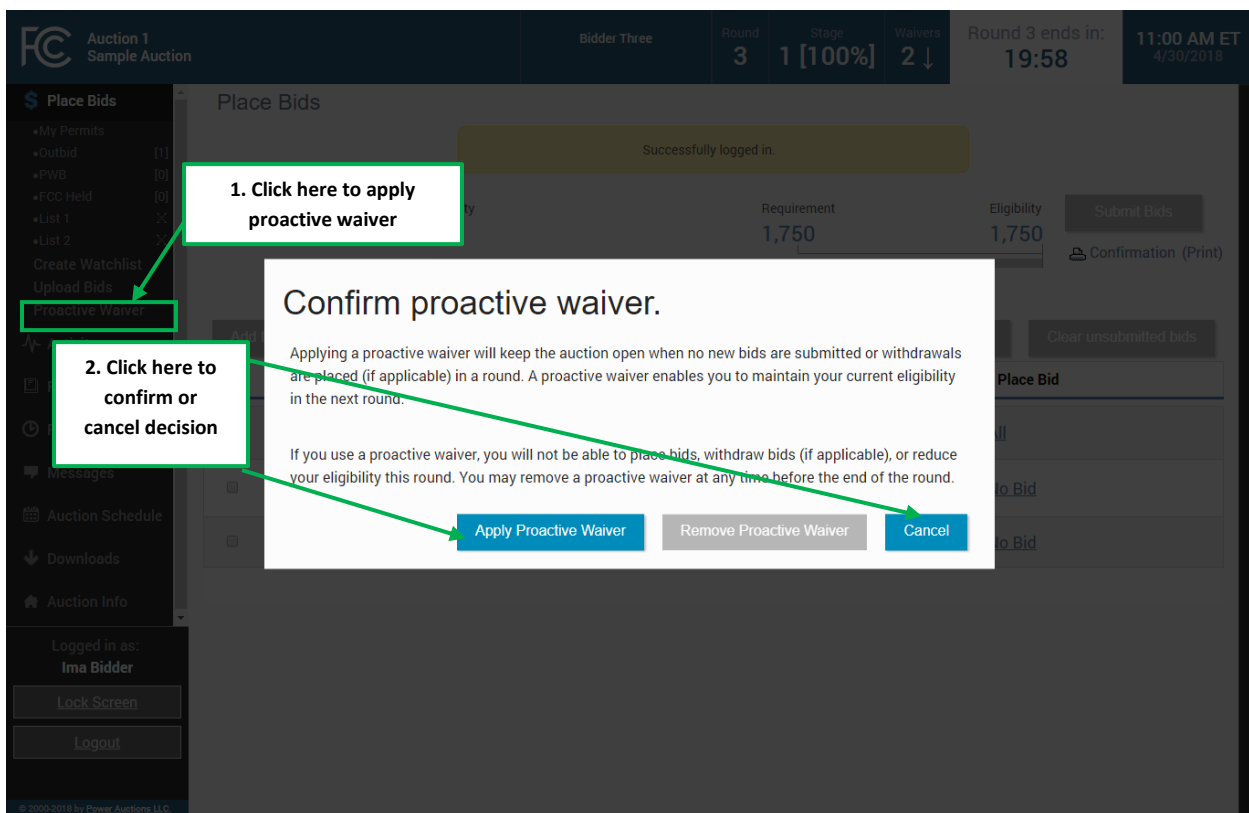
7.8.1. Proactive Waiver

A bidder can submit a waiver proactively (a Proactive Waiver) in order to avoid having to meet the activity requirement in a given round. A proactive waiver will keep the auction open when no new bids or withdrawals (if allowed) are submitted in a round.

As mentioned above, each bidder is limited in the total number of waivers (proactive and automatic) it may use during the auction. Be advised that once you submit a proactive waiver, you will not be able to place bids, withdraw provisionally winning bids (if permitted), or reduce your eligibility for the rest of the round unless you remove the proactive waiver and then place new bids, withdrawals (if allowed) or reduce your eligibility.

To submit a proactive waiver, click [Proactive Waiver](#) on the navigation bar. On the pop-up screen click [Apply Proactive Waiver](#) to confirm the decision or click [Cancel](#) to return to the place bids page. If a bidder is unable to apply a proactive waiver, a pop-up message will provide the reasons why a proactive waiver may not be applied.

Figure 40: Apply Proactive Waiver



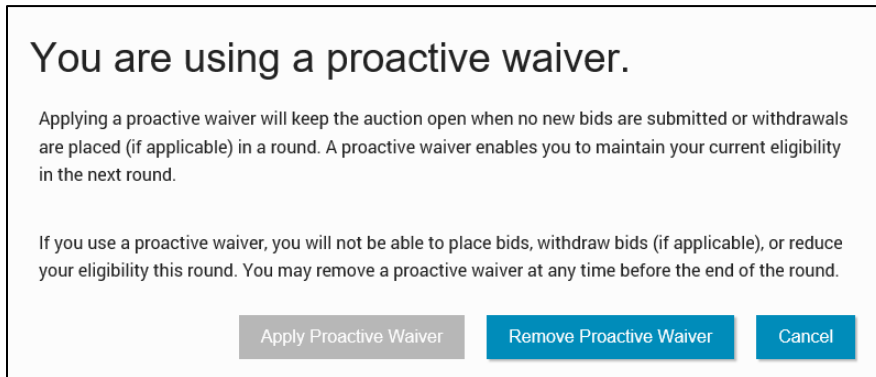
Once a proactive waiver has been applied, the note under the activity bar changes to read, “You are using a proactive waiver.”

Figure 41: Activity Bar – Proactive Waiver



To remove the proactive waiver during the current round, click on [Remove Proactive Waiver](#) under the activity bar or click [Proactive Waiver](#) on the navigation bar and click [Remove Proactive Waiver](#) on the pop-up screen.

Figure 42: Remove proactive waiver



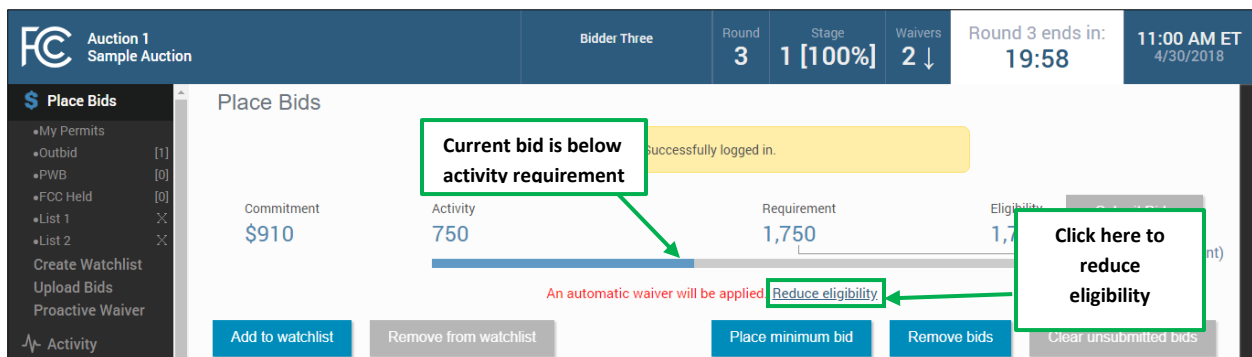
7.9. Reduce Eligibility

If your activity is below your required activity for the round, you may continue to place new bids, reduce your current eligibility, or use a waiver, if any are remaining. If you choose to reduce your eligibility, be advised that this will be a permanent reduction once the round ends.

If you reduce your eligibility, ABS will reduce your eligibility to the amount at which your required activity equals your current activity. (These fields are shown as Activity, Requirement, and Eligibility on the status bar.) In other words, it makes what is required of you equal to what you are currently active on. If you plan to place bids and reduce your eligibility in the same round, be sure to place your bids before reducing your eligibility.

To reduce eligibility, click [Reduce Eligibility](#) under the activity bar on the Place Bids screen.

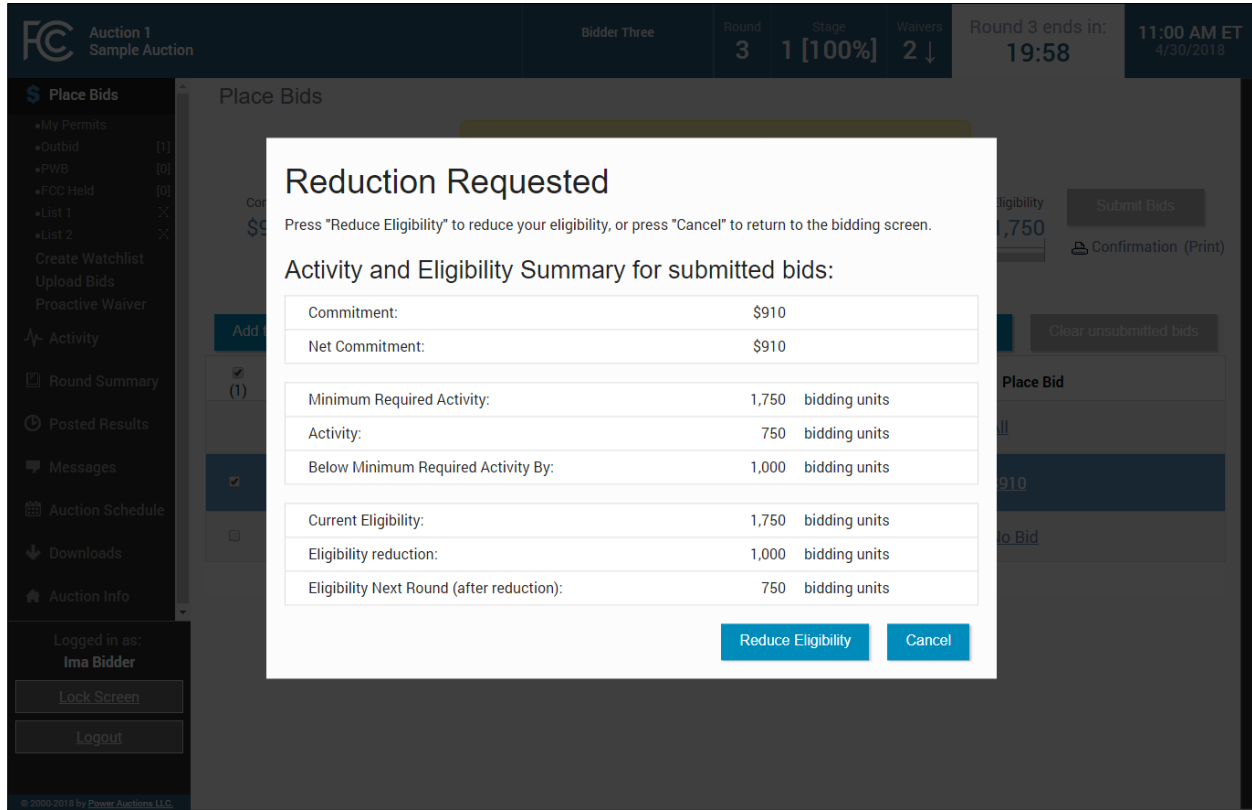
Figure 43: Reduce Eligibility



ABS will display the reduction requested pop-up with a summary of the new activity and eligibility for submitted bids as shown in Figure 44. Check this summary and then either implement the eligibility

reduction by clicking **Reduce Eligibility** or cancel it by clicking **Cancel**. Either action directs you back to the Place Bids screen.

Figure 44: Reduction Requested summary pop-up



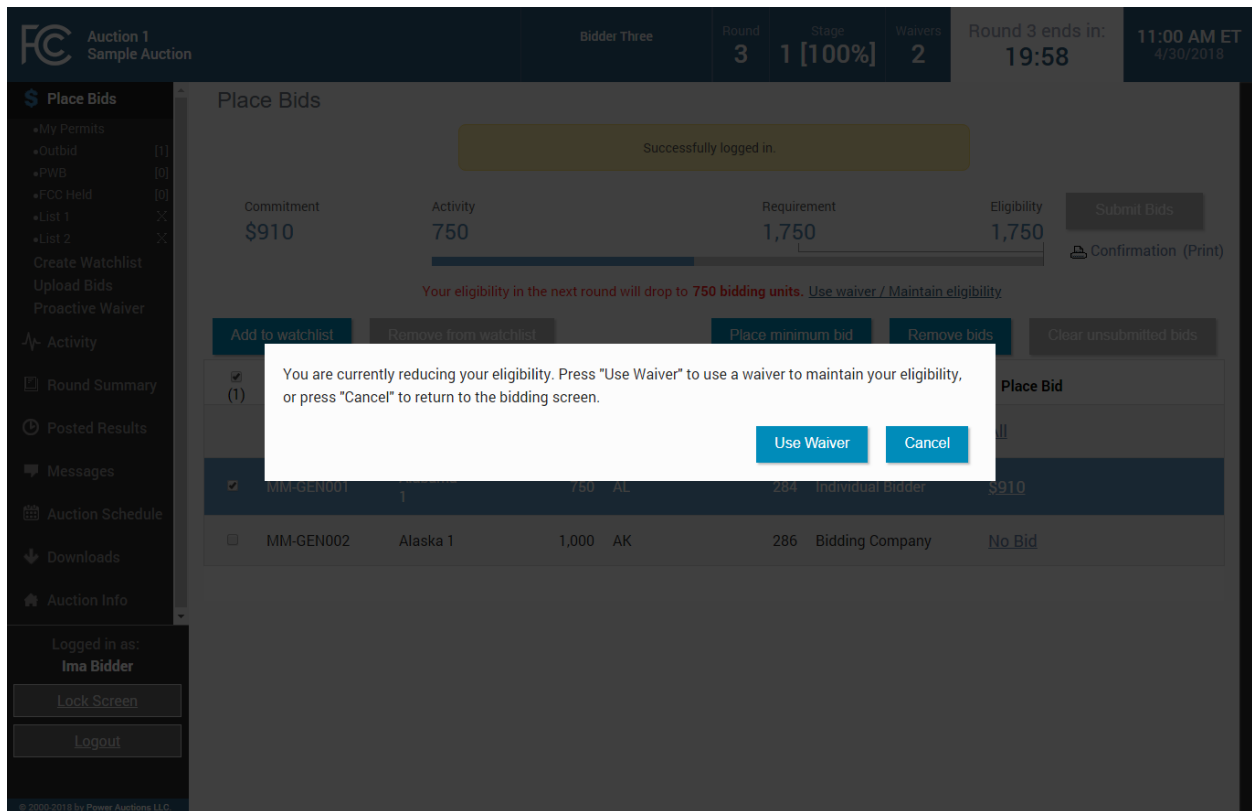
Once the eligibility reduction has taken place, the note under the activity bar shows the status of the eligibility decision as shown in Figure 45.

Figure 45: Eligibility Reduction



You may undo your eligibility reduction while the round is active by clicking the Use Waiver/Maintain Eligibility link under the activity bar and then click **Use Waiver** in the pop-up screen.

Figure 46: Using Waiver summary pop-up



8. Activity and Eligibility

The Activity tab may be accessed at any time during the auction to check your activity and eligibility as shown in Figure 47. The table has two parts: one for submitted bids and another for submitted and unsubmitted bids.

Figure 47: Activity and Eligibility Summary

Activity and Eligibility Summary

For submitted bids

Commitment	\$910
Net Commitment	\$910
Minimum Required Activity	1,750 Bidding Units
Activity	750 Bidding Units
Below Minimum Required Activity By	1,000 Bidding Units
Current Eligibility	1,750 Bidding Units
Eligibility Reduction	N/A
Eligibility Next Round	1,750 Bidding Units

Logged in as: **Ima Bidder**

Lock Screen

Logout

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9. Round Summary

The Round Summary contains two tabs: My Actions and Confirmation. Access this screen by clicking the Round Summary tab on the navigation bar or the [Confirmation](#) link below the Submit Bids button.

A table available on both tabs displays Commitment, Net Commitment, Waivers, Withdrawal Rounds (if allowed), and Activity and Eligibility information, all of which are based on the current activity this round.

9.1. My Actions

My Actions screen gives a log summarizing all the bidding actions taken by the bidder during the round. Each action is time stamped, and a column denotes which bidder took the action. It is strongly recommended that this screen be saved or printed before the round ends for a record of your bidding actions. In addition to the current round, round summaries for past rounds can be accessed by clicking on the “Filter” drop-down box containing round numbers.

Figure 48: Round Summary screen – My Actions

Round Summary - My Actions

(Generated: Friday, April 27 2018, 4:27:41 PM ET)

Filter: Round 3

Commitment	\$910	Minimum Required Activity	1,750 Bidding Units
Net Commitment	\$910	Activity	750 Bidding Units
Waivers	2 ↓	Below Minimum Required Activity By	1,000 Bidding Units
		Current Eligibility	1,750 Bidding Units
		Eligibility Reduction	N/A
		Eligibility Next Round	1,750 Bidding Units

Permit	Description	Bidding Units	Bid Amount	Net Bid Amount	Action	Placed By	Timestamp
<input type="text" value="filter"/>	<input type="text" value="filter"/>	<input type="text" value="filter"/>	<input type="text" value="filter"/>	<input type="text" value="filter"/>	<input type="text" value="filter"/>	<input type="text" value="filter"/>	<input type="text" value="filter"/>
					canceled request to reduce eligibility	Ima Bidder	April 30 2018, 11:00:02 AM ET
					reduced eligibility, next round will be: 750	Ima Bidder	April 30 2018, 11:00:02 AM ET
MM-GEN001	Alabama 1	750	\$910	\$910	placed a new bid for \$910	Ima Bidder	April 30 2018, 11:00:02 AM ET

9.2. Confirmation

The Confirmation screen displays the actions that will be processed at the close of the round. This screen may also be accessed by clicking the Confirmation link in the Place Bids screen. In addition to the

current round, confirmations for past rounds can be accessed by clicking on the “Filter” drop-down box containing round numbers.

Figure 49: Round Summary screen – Confirmation

Auction 1
Sample Auction

Bidder Three

Round
3

Stage
1 [100%]

Waivers
2 ↓

Round 3 ends in:
19:58

11:00 AM ET
4/30/2018

Place Bids

Activity

Round Summary

Posted Results

Messages

Auction Schedule

Downloads

Auction Info

Logged in as:
Ima Bidder

Lock Screen

Logout

Round Summary - Confirmation

Print

(Generated: Friday, April 27 2018, 4:28:26 PM ET)

Filter: Round 3 ▾

	Minimum Required Activity	1,750 Bidding Units	
Commitment	\$910	Activity	750 Bidding Units
Net Commitment	\$910	Below Minimum Required Activity By	1,000 Bidding Units
Waivers	2 ↓	Current Eligibility	1,750 Bidding Units
		Eligibility Reduction	N/A
		Eligibility Next Round	1,750 Bidding Units

Permit	Description	Bidding Units	Bid Amount	Net Bid Amount	Bid Type
<input type="text" value="filter"/>	<input type="text" value="filter"/>	<input type="text" value="filter"/>	<input type="text" value="filter"/>	<input type="text" value="filter"/>	<input type="text" value="filter"/>
MM-GEN001	Alabama 1	750	\$910	\$910	bid

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10. Posted Results

When a round ends ABS calculates the results of bidding in the round. To view round results, click on the Posted Results link on the Navigation bar. The Posted Results screen has two tabs: My Bid Result and Last Posted Round shown in Figure 50.

10.1. My Bid Result

My Bid Result displays your results from any completed round (Figure 50). The upper portion of the screen shows your status (commitment, waiver, withdrawal (if allowed), activity and eligibility). The lower table show the status of the items on which you are eligible to bid. Filter options can narrow the data in various ways to show customized information. Filtering by round and watchlist can be done using the “Filters” drop-down boxes. Additional filtering can be done using the filter boxes under the column headers.

The PWB amounts for all items with a PWB are shown as well as the Net PWB Amounts.

Figure 50: My Bid Result tab

10.2. Last Posted Round

Last Posted Round gives the status of the auction after the last posted round as shown in Figure 51. The top portion of the screen shows the total of all PWB amounts for the round, the Dollar and Percentage

changes, the Stage Transition Percentage, the number of New Bids, Withdrawals (if allowed), Proactive Waivers, and the number of Items with PWBs, and the number of FCC-held items.

The lower portion of the screen breaks the information down according to items. This screen also shows whether any PWBs were withdrawn (if allowed) for a given item.

Figure 51: Last Posted Round tab

Permit	Description	Bidding Units	PW Bidder	PWB Amount	Net PWB Amount	MAB (R3)
MM-GEN001	Alabama 1	750	Individual Bidder	\$830	\$623	\$910
MM-GEN002	Alaska 1	1,000	Bidding Company	\$1,100	\$1,100	\$1,200
MM-GEN003	Arizona 1	1,500	FCC	-	-	\$1,500
MM-GEN004	Arkansas 1	750	FCC	-	-	\$750
MM-GEN005	California 1	1,500	FCC	-	-	\$1,500
MM-GEN006	Colorado 1	1,000	FCC	-	-	\$1,000
MM-GEN007	Florida 1	750	FCC	-	-	\$750
MM-GEN008	Georgia 1	1,000	FCC	-	-	\$1,000
MM-GEN009	Hawaii 1	1,000	FCC	-	-	\$1,000

11. Downloads

The Downloads screen has four tabs. The table below shows each tab and the files it contains. The My Bids/Status and All Posted Bids/Status tab files can be filtered by round:

Tabs of download screens with contained files

My Bids/Status	Current Prices	All Posted Bids/Status	Other
My Bids	Current Minimum Acceptable Bids	All New Bids	Auction Summary
My New Bids	My Bids Upload (with current prices)	All Withdrawn Bids*	Round Summary
My Withdrawn Bids*		All Provisionally Winning Bids	Items Info
My Bid Results		All Item Status	Pricing Formulas
My Provisionally Winning Bids		All Bidder Status	All Bidder Items

My Bids/Status	Current Prices	All Posted Bids/Status	Other
My Item Status			
My Bidder Status			
My Actions (Audit Log)			

*if withdrawals are allowed in the auction

Each report is available in Excel (.xls) format and in comma-separated-values (.csv) format. Some of the reports are also available as shapefiles, which are described further in Section **Error! Reference source not found.** To download a particular file, click on the corresponding icon and follow the instructions in your browser.

11.1. My Bids

The My Bids report lists all the bids you submitted for the selected round. Note that not all examples in the specifications below are relevant for the My Bids file, as the specifications also apply to other files (My New Bids, My Withdrawn Bids*, All New Bids, All Withdrawn Bids*).

Specifications:

Field	Description	Data Type	Examples/Notes
auction_id	FCC identifier for this auction	String {1..20}	98
round	Round number	Integer	11
bidder	Name of qualified bidder	String {1..50}	"Bidding Company" <i>bidder name</i>
frn	FCC Registration Number of this bidder	String [0,9] {10}	0123456789 <i>bidder FRN</i>
item	Uniquely identifies the item	String {1..20}	MM-FM598A
item_description	Item description	String {1..50}	Freer, TX
bidding_units	Unit of measure applied to the item being auctioned	Integer	10000
bid_type	Type of bid	String ["bid", "stay", "withdraw"]	<i>bid = a new bid</i> <i>stay = a PWB with no new bid entered</i> <i>withdraw = a withdrawal on a bid (only if permitted in the auction)*</i>

Field	Description	Data Type	Examples/Notes
bid_amount	The dollar amount entered for the item	Dollar	55000 <i>If withdrawal, gross amount of withdrawn bid*</i>
bidding_credit	Bidding credit percentage	Integer	0 (no credit), 15 (15%), 25 (25%), 35 (35%)
net_bid_amount	Net Price of Bid (applying bidding credit)	Dollar	800000 <i>If withdrawal, net price of withdrawn bid*</i>
increments_of_bid	Option number for the bid	Integer	1 = <i>Minimum Acceptable Bid for a round</i> 2-9 = <i>Additional bid amounts (higher than Minimum Acceptable Bid)</i> <i>Null for stay or withdraw*</i>
bid_round	Round number that the bid was entered	Integer	12 <i>Will be the original round that the bid was entered for "withdraw"* or "stay"</i>
selection_number	Random number for tie-breaking purposes. A number between 0 and 1 with 15 digits accuracy, represented as a string in the downloads to preserve trailing 0s	String {17}	0.123456789012345 <i>Selection number is not available for bids pertaining to an active round. Null for withdraw* bid or stay bid</i>
The rest of the fields vary by auction.			
channel	Identifies the channel of the item	String {1..2}	284
city	Identifies the city of the item.	String {1..20}	Freer
state	Identifies the state	String {1..20}	TX
service	Identifies the service code.	String	MM

*if withdrawals are allowed in the auction

11.1.1. My New Bids

This is a subset of the My Bids file displaying only the new bids placed by the bidder each round. The fields are the same as for the My Bids file.

11.1.2. My Withdrawn Bids

This is a subset of the My Bids file displaying only the withdrawn bids placed by the bidder during the round if withdrawals are allowed. The fields are the same as for the My Bids file. Not available in all auctions.

11.2. My Bid Results

This download lists the results of all your bids from a given round (including stay bids and withdrawals (if allowed)). This report is available after round results have been processed and posted. Note that not all examples in the specifications below are relevant for the My Bid Results file, as the specifications also apply to other files (My Provisionally Winning Bid, All Provisionally Winning Bids).

Specifications:

Field	Description	Data Type	Examples/Notes
auction_id	FCC identifier for this auction	String {1..20}	98
round	Round number for which this file was generated	Integer	11
item	Uniquely identifies the item	String {1..20}	MM-FM598A
item_description	Item description	String {1..50}	Freer, TX
bidding_units	Unit of measure applied to the item being auctioned	Integer	10000
bidder	Name of qualified bidder	String {1..50}	"Bidding Company" <i>bidder name</i>
frn	FCC Registration Number of this bidder	String [0,9] {10}	0123456789 <i>bidder FRN</i>
bid_round	Round number that the bid was entered	Integer	12 <i>Will be the original round that the bid was entered for "withdraw"* or "stay"</i>
bid_result	Result of the bid	String ["PWB","outbid","withdrawn"]	PWB – <i>PWB for a new bid or stay bid</i> outbid – <i>if outbid for a new or stay bid</i> withdrawn – <i>if withdrew bid*</i>
bid_amount	The dollar amount entered for the item	Dollar	55000 <i>If withdrawal, gross amount of withdrawn bid*</i>
bidding_credit	Bidding credit percentage	Integer	0 (no credit), 15 (15%), 25 (25%), 35 (35%)

Field	Description	Data Type	Examples/Notes
net_bid_amount	Net price of bid (applying bidding credit)	Dollar	800000 0 if FCC Held If withdrawal, net price of withdrawn bid*
The rest of the fields vary by auction. There will be at least 4 fields.			
channel	Identifies the channel of the item	String {1..2}	284
city	Identifies the city of the item.	String {1..20}	Freer
state	Identifies the state	String {1..20}	TX
service	Identifies the service code.	String	MM

*if withdrawals are allowed in the auction

11.2.1. My Provisionally Winning Bids

This is a subset of the My Bid Results file, showing only your provisionally winning bids. The fields are the same as for the My Bid Results file.

11.3. My Item Status

The My Item Status download provides details about item status, including Minimum Acceptable Bid, Provisionally Winning Bid, Provisionally Winning Bidder, and number of bids. Note that not all examples in the specifications below are relevant for the My Item Status file, as the specifications also apply to another file (All Item Status).

Specifications:

Field	Description	Data Type	Examples/Notes
auction_id	FCC identifier for this auction	String {1..20}	98
round	Auction round	Integer	33
item	Uniquely identifies the item	String {1..20}	MM-FM598A
item_description	Item description	String {1..50}	Freer, TX
bidding_units	Unit of measure applied to the item being auctioned	Integer	10000
new_bids	Number of new bids submitted by the bidder in the current round	Integer	1
tied_bids	Number of tied bids at the highest price	Integer	2, 0 if only one bid at the highest price. Null if no bids or FCC Held

Field	Description	Data Type	Examples/Notes
pw_bidder	Provisional Winning Bidder Name	String {1..50}	"Bidding Company" <i>bidder name or FCC if there is no PW Bidder</i>
pw_bidder_frn	FCC Registration Number of the provisionally winning bidder	String [0,9] {10}	0123456789 <i>bidder FRN or 9999999999 for FCC</i>
pwb_amount	Amount of the PWB before any credit is applied	Dollar	878000 <i>0 if FCC Held</i>
bidding_credit	Bidding credit percentage	Integer	0 (no credit), 15 (15%), 25 (25%), 35 (35%)
net_pwb_amount	Amount of the PWB after credit is applied, and taking into account both bidding credit caps (overall, and market-based, if present).	Dollar	800000 <i>0 if FCC Held</i> <i>Null when bid_result is outbid, withdrawn*, tied-not PWB</i>
round_of_pwb	Round in which the PWB was placed	Integer	2 (this includes rounds in which item was FCC Held) <i>Displays 0 when item has never received a bid</i> <i>Displays the round of the withdrawal, while item was FCC Held because of the withdrawal*</i>
increments_of_pwb	Number of bid increments selected by the bidder	Integer	1 = <i>Minimum Acceptable Bid for a round</i> 2-9 = <i>Additional bid amount (higher than Minimum Acceptable Bid)</i>
date_of_pwb	Date the PWB was placed	Date	<i>yyyy-mm-dd</i>
previous_pw_bidder	Bidder name of previous provisional winning bidder	String {1..50}	"Bidding Company" <i>bidder name or FCC</i>
previous_pw_bidder_frn	FRN of previous provisionally winning bidder	String [0,9] {10}	0123456789 <i>bidder FRN or 9999999999 for FCC</i>

Field	Description	Data Type	Examples/Notes
previous_pwb_amount	Amount of the previous PWB before any credit is applied	Dollar	878000 <i>0 FCC Held (not due to withdrawal Null until another bid is placed to supersede the first PWB or the initial PWB is withdrawn*</i>
previous_pwb_bidding_credit	Previous provisionally winning bidder’s discount for this item	Decimal [0 - 0.99]	0 = no credit 0.15 = 15% Null =FCC
previous_net_pwb_amount	Amount of previous PWB after credit is applied	Dollar	800000 0 (FCC)
round_of_previous_pwb	Round number that the PWB was placed as a new bid (does not include stay bids)	Integer	2 <i>Null until another bid is placed to supersede the first PWB, or the initial PWB is withdrawn.*</i>
item_closed	Indicates whether bidding has closed for the item	String {Y N}	Y = item has closed <i>Items can close by group At end of auction all items will be “Y” even if FCC held.</i>
The rest of the fields vary by auction. There will be at least 4 fields			
channel	Identifies the channel of the item	String {1..2}	284
city	Identifies the city of the item.	String {1..20}	Freer
state	Identifies the state	String {1..20}	TX
service	Identifies the service code.	String	MM

*if withdrawals are allowed in the auction

11.3.1. My Bidder Status

This download provides details about your current status, including activity, waiver and withdrawal counts, and total bids.

Specifications:

Field	Description	Data Type	Examples/Notes
auction_id	FCC identifier for this auction	String {1..20}	98
round	Auction round	Integer	11

Field	Description	Data Type	Examples/Notes
bidder	Name of qualified bidder	String {1..20}	"Bidding Company"
frn	FCC Registration Number of this bidder	String [0,9]{10}	0123456789
bidding_credit_type	Indicates the type of bidding credit that the bidder gets, if any.	String ["Rural" "Small Business" "New Entrant" ""] {0,14}	Null <i>if bidder has no bidding credit</i>
eligibility	Represents the maximum number of bidding units on which a bidder may submit bids.	Integer	8000000
required_activity	Minimum number of bidding units the bidder must be active on in the current round to meet its activity requirement	Integer	95000
activity	The sum of the bidding units associated with items covered by the bidder's new bids in the round plus its provisionally winning bids from the previous round.	Integer	3434000
below_required_activity	If activity is < required_activity, then below_required_activity = required_activity minus activity; else zero.	Integer	1566000
new_bids	Number of new bids submitted by the bidder in the round	Integer	1
stay_bids	Number of stay bids submitted by bidder in the current round	Integer	7
withdrawn_bids*	Number of withdrawn bids submitted by bidder in the round	Integer	0 <i>Null if withdrawals are not allowed in the auction</i>

Field	Description	Data Type	Examples/Notes
commitment	Total dollar amount of new bids that are not withdrawals and stay bids, regardless of whether bids are PWBs after the round is posted	Dollar	40983539
net_commitment	Net dollar amount of new bids that are not withdrawals and stay bids, regardless of whether bids are PWBs after the round is posted	Dollar	40983539
eligibility_result	Descriptive activity requirement text	String ["auto waiver", "proactive waiver", "requirement met", "reduce eligibility", "auto reduce"]	auto waiver proactive waiver requirement met reduce eligibility auto reduce
eligibility_reduction	eligibility_next_round minus eligibility	Integer	0
eligibility_next_round	Eligibility next round	Integer	80000000
number_pwbs	Number of items for which bidder is PW Bidder	Integer	23 <i>Null during round; updated after posting</i>
total_pwb_amount	Total dollar amount of this bidder's PWBs, before any bidding credit is applied.		23456000 <i>Null during round; updated after posting</i>
total_net_pwb_amount	Total net dollar amount of this bidder's PWBs, taking into account any bidding credit.	Dollar	21567800 <i>Null during round; updated after posting</i>
effective_pwb_bidding_credit	The actual bidding credit percentage Calculated as $(1 - (\text{total_net_pwb_amount} / \text{total_pwb_amount})) * 100$	Decimal	21.05 <i>Null during round; updated after posting</i> <i>Calculated to 2 decimal places</i>

Field	Description	Data Type	Examples/Notes
pwb_bidding_units	Total number of bidding units associated with the bidder's PWBs	Integer	13400 <i>Null during round; updated after posting</i>
waivers_remaining	Number of waivers remaining for the bidder	Integer	3
withdrawals_remaining*	Number of withdrawal rounds remaining for the bidder	Integer	1 <i>Null if withdrawals are not permitted in the auction</i>

11.3.2. My Actions

This is a detailed account of the bidder's auction activity.

Specifications:

Field	Description	Data Type	Examples/Notes
auction_id	FCC identifier for this auction	String	98
round	Round number	Integer	11
bidder	Name of qualified bidder	String	"Bidding Company"
frn	FCC Registration Number of this bidder	String [0,9]{10}	0123456789
item	Uniquely identifies the item	String {6,20}	MM-FM598A
item_description	Item description	String {1..50}	Freer, TX
bidding_units	Unit of measure applied to the item being auctioned	Integer	10000
bid_amount	The dollar amount entered for the item	Dollar	55000 <i>If withdrawal, gross amount of withdrawn bid*</i>
net_bid_amount	Net Price of Bid (applying bidding credit)	Dollar	800000
action	Descriptive text	String	"Place a new bid for \$5,000" Changed waiver count to 3 from 2
placed_by	Name of the user performing the action	String	Joe Smith
timestamp	Date and time the action was taken	Date/Time	2014-10-27 2:16:53 PM

*if withdrawals are allowed in the auction

11.4. Current Prices

11.4.1. Current Minimum Acceptable Bids

This file shows the minimum acceptable bid amounts for all items for all rounds, including Round 1.

Records are added when rounds are announced.

Specifications:

Field	Description	Data Type	Example/notes
auction_id	FCC identifier for this auction	String {1..20}	98
round	Round number	Integer	33
item	Uniquely identifies the item	String {1..20}	MM-FM598A
item_description	Item description	String {1..50}	Freer, TX
bidding_units	Unit of measure applied to the item being auctioned	Integer	10000
previous_round_pwb_amount	Previous round's PWB amount	Dollar	12000 <i>For Round 1, this is null, as there was no previous PWB. If no bids have been entered for the item to-date, this null.</i>
previous_round_new_bids	Number of new bids for the item from previous round	Integer	2 <i>Does not include stays. For Round 1, this is null, as there was no previous round</i>
mab	Minimum acceptable bid for this round	Dollar	50000 <i>For Round 1 this is the minimum opening bid (MOB).</i>
mab_increment	Dollar increase over last round's PWB	Dollar	1500 <i>MAB (this round) – PWB (last round)</i> <i>0 if there is no previous PWB.</i>
mab_increment_percentage	Percentage increase over last round's PWB	Decimal	12.34 <i>MAB (this round) – PWB (last round) / PWB (last round).</i> <i>For auction using constant percentage increase, may be different than the rule due to rounding and capping.</i>
mab_source	Source of MAB	String ["F" "O" "C"]	F = Calculated using formula O = Auction-Administrator override for MAB (overrides trump capped) C = capped

Field	Description	Data Type	Example/notes
mab_rule	Type of formula	String ['S' 'P']	S= <i>Smoothing formula</i> P = <i>Constant percentage increase</i>
mab_floor	Minimum percentage increment when computing MAB (Floor)	Decimal	15, 15.25 <i>Used with Smoothing price formulas;</i> <i>Null when using constant price formula</i>
mab_ceiling	Maximum percentage increment when computing MAB (Ceiling)	Decimal	35, 35.25 <i>Used with Smoothing price formulas;</i> <i>Null when using constant price formula</i>
activity_weight	Weighting factor for activity used when computing MAB	Decimal [0..1]	0.55 <i>Used with Smoothing price formulas;</i> <i>Null when using constant</i>
mab_percentage_without_ceiling	Uncapped percentage that was used during calculation of this round's MAB. $(1 + A_i) * N$	Decimal	12.34 <i>Null when using constant</i> <i>Does not include FCC rounding</i>
mab_formula_constant_percentage	Percentage used with constant percentage mab	Decimal	10.56 <i>Used with Constant percentage increase;</i> <i>Null when using smoothing</i>
mab_cap	A dollar cap on the amount by which the MAB may increase over PWB amount	Dollar	500000 <i>Null if not used</i>
additional_increment_amount	Additional increment amount used to determine the additional bid amounts.	Dollar	5000
additional_increment_formula_percentage	Percentage adopted by the FCC for calculating additional increments	Decimal	5, 5.53
additional_increment_source	Source of the additional bid increment amount	String ["F" "C"]	F = <i>Calculated using formula</i> C = <i>capped</i>
additional_increment_cap	A dollar cap on the result of the formula for calculating the additional increment amount	Dollar	500000 <i>Null if not used</i>
number_additional_increments	Number of additional bid amounts	Integer	8 <i>does not include the MAB</i>

11.4.2. My Bids Upload (with current prices)

This file has the same format as the My Bids Upload file described in Section 11.1.

11.4.3. All Posted Bids/Status

11.4.3.1. All New Bids

The file structure is the same as for the New Bids file described in Section 11.1.1. The file contains all new bids placed during the round for all bidders in the auction, subject to the disclosure policy in place for the auction.

11.4.3.2. All Withdrawn Bids (if withdrawals are allowed)

The file structure is the same as for the Withdrawn Bids file described in Section 11.1.2. The file contains all withdrawn bids placed during the round for all bidders in the auction, subject to the disclosure policy in place for the auction.

11.4.3.3. All Provisionally Winning Bids

The file structure is the same as for the Provisionally Winning Bids file described in Section 11.3.1. The file contains all provisionally winning bids placed during the round for all bidders in the auction, subject to the disclosure policy in place for the auction.

11.4.3.4. All Item Status

The file structure is the same as for the Item Status file described in Section 11.3.

11.4.3.5. All Bidder Status

The file structure is the same as for My Bidder Status in Section 11.3.1.

11.5. Other Downloads

The files described in this section are also available in the Public Reporting System (PRS).

11.5.1. Auction Summary

This report offers high-level summary of the auction

Specifications:

Field	Description	Data Type	Examples/Notes
auction_id	FCC identifier for this auction	String {1..20}	98

Field	Description	Data Type	Examples/Notes
auction_description	Name of the auction	String {1..30}	700 MHz Spectrum
rounds	Total number of rounds	Integer	363
date_opened	Date the auction commenced	Date	yyyy-mm-dd
date_closed	Date the auction concluded	Date	yyyy-mm-dd; if the auction is closed Null if the auction is open
bidding_days	Number of days the auction was active	Integer	63 days
total_pwb_amount	Total of provisionally winning bid amounts	Dollar	2063000000
total_net_pwb_amount	Total of net provisionally winning bid amounts	Dollar	1998000000
pw_bidders	Total number of winning bidders	Integer	45; If the auction is closed
qualified_bidders	Number of bidders who qualified to participate in the auction	Integer	100
items_with_pwbs	Total number of items with provisionally winning bids	Integer	405
fcc_held_items	Number of items held by the FCC at the end of the auction	Integer	3
total_items	sum of items_with_pwbs and fcc_held_items	Integer	16
item_type	Type of items offered for bid during the auction	String {1..30}	Permit

11.5.2. Round Summary

The Round Summary offers a high-level summary of each round, and it is only available after the round has been posted.

Specifications:

Field	Description	Data Type	Examples/Notes
auction_id	FCC identifier for this auction	String {1..20}	98
round	Auction round	Integer	11
round_start_time	Date and time the round started	Date/Time	2014-10-27 14:16:53
round_stop_time	Date and time the round ended (not including recess)	Date/Time	2014-10-27 14:16:53
total_pwb_amount	Total of provisionally winning bid amounts	Dollar	2063000000

Field	Description	Data Type	Examples/Notes
dollar_change_in_total_pwb_amount	total_pwb_amount minus total_pwb_amount of previous round	Dollar	2063000
percent_change_in_total_pwb_amount	dollar_change_in_total_pwb_amount divided by total_pwb_amount of previous round	Decimal	12.34 (12.34%); -12.34 (-12.34%) <i>Null for Round 1</i>
total_net_pwb_amount	Total of net provisionally winning bid amounts	Dollar	1998000000
dollar_change_in_total_net_pwb_amount	total_net_pwb_amount minus total_net_pwb_amount of previous round	Dollar	1953000
percent_change_in_total_net_pwb_amount	dollar_change_in_total_net_pwb_amount divided by total_net_pwb_amount of previous round	Decimal	12.34 -12.4 <i>0 if there is no previous PWB</i>
pw_bidders	Total number of provisionally winning bidders	Integer	45
eligible_bidders	Total number of bidders with eligibility > 0 at the start of the round	Integer	3
eligibility_ratio	(sum of current eligibility of all bidders) / (sum of all the bidding units of the items)	Decimal	2.12
eligibility_ratio_less_fcc_held	(sum of current eligibility of all bidders) / (sum of all the bidding units of items with PWBs)	Decimal	3.12
proactive_waiver_flag	Displays "Y" if at least one bidder submitted a proactive waiver.	String ["Y" "N"]	Y N
proactive_waiver_bidders	Count of bidders where eligibility_result equals proactive waiver (See All Bidder Status table)	Integer	1
auto_waiver_bidders	Count of bidders where eligibility_result equals auto waiver (See All Bidder Status table)	Integer	3
requirement_met_bidders	Count of bidders where eligibility_result equals requirement met (See All Bidder Status table)	Integer	20

Field	Description	Data Type	Examples/Notes
reduced_eligibility_bidders	Count of bidders where eligibility_result equals reduce eligibility (See All Bidder Status table)	Integer	1
auto_reduced_bidders	Count of bidders where eligibility_result equals auto reduce (See All Bidder Status table)	Integer	0
withdraw_bidders	The number of bidders that withdrew PWBs in a round; count of bidders where withdrawn_bids > 0 (See All Bidder Status table)	Integer	1*
withdraw_status	Indicates if any withdrawals took place during a round.	String ["Y" "N"]	Y or N*
withdrawn_bids	The number of bids withdrawn in a round; (See All Bidder Status table)	Integer	2*
items_with_pwbs	Total number of items with provisionally winning bids	Integer	405
fcc_held_items	Number of items held by the FCC after the round is posted.	Integer	3
stage	Identifies the stage of the auction	String {1..20}	1, 2, 3
stage_transition_percentage	(sum of bidding units of items with new bids) / (sum of bidding units of all items)	Decimal	12.34
stage_transition_percentage_less_fcc_held	(sum of bidding units of items with new bids) / (sum of bidding units of all items with PWBs)	Decimal	15.99

*if withdrawals are allowed in the auction

11.5.3. Items Info

The contents of the file reflect the way the auction was configured

Specifications:

Field	Description	Data Type	Examples/Notes
auction_id	FCC identifier for this auction	String {1..20}	98
item	Uniquely identifies an item	String {1..20}	MM-FM598A

Field	Description	Data Type	Examples/Notes
item_description	Item description	String {1..50}	Freer, TX
bidding_units	Unit of measure applied to the item being auctioned	Integer	10000
mob	Minimum amount required to place the first bid on the item	Dollar	567000
channel	Identifies the channel of the item	String {1..2}	284
city	Identifies the city of the item.	String {1..20}	Freer
state	Identifies the state	String {1..20}	TX
service	Identifies the service code.	String	MM

11.5.4. Pricing Formulas

This file defines the pricing formulas for the Minimum Acceptable Bid (MAB) and the increment for the additional bid amounts.

Specifications:

Field	Description	Data Type	Examples/Notes
auction_id	FCC identifier for this auction	String {1..20}	98
effective_round	The round where the pricing formula will take effect.	Integer	1
mab_rule	Type of formula	String ['S' 'P']	<i>S= Smoothing formula</i> <i>P= Constant percentage increase</i>
mab_floor	Minimum percentage increment when computing MAB (Floor)	Decimal	15 15.35 <i>Used with Smoothing price formulas;</i> <i>Null when using constant</i>
mab_ceiling	Maximum percentage increment when computing MAB (Ceiling)	Decimal	35 35.35 <i>Used with Smoothing price formulas;</i> <i>Null when using constant</i>
activity_weight	Weighting factor for activity used when computing MAB	Decimal [0,1]	0.55 <i>Used with Smoothing price formulas;</i> <i>Null when using constant</i>

Field	Description	Data Type	Examples/Notes
mab_formula_constant_percentage	Percentage used with constant percentage MAB	Decimal	10 10.35 <i>Used with Constant percentage increase</i> <i>Null for Smoothing</i>
mab_cap	A dollar cap on the amount by which the MAB may increase over PWB amount	Dollar	500000 <i>Null if not used</i>
additional_increment_formula_percentage	Percentage for calculating additional increments	Decimal	5 5.35
additional_increment_cap	A dollar cap on the result of the formula for calculating the additional increment amount	Dollar	500000 <i>Null if not used</i>
number_additional_increments	Number of additional Bid amounts	Integer [0,9]	8 (<i>does not include the MAB</i>)

11.5.5. All Bidder Items

Provides details about all the items a bidder can bid on and any applicable bidding credits.

Specifications:

Field	Description	Data Type	Examples/Notes
auction_id	FCC identifier for this auction	String {1..20}	98
bidder	Name of qualified bidder	String {1..50}	"Bidding Company"
frn	FCC Registration Number of this bidder	String [0,9]{10}	0123456789 <i>bidder FRN</i>
item	Uniquely identifies the item	String {1..20}	MM-FM598A
bidding_credit	Bidding credit percentage	Integer	0 (no credit), 15 (15%), 25 (25%), 35 (35%)

12. Final Results

After the final round of the auction has been posted, the timer on all screens will be replaced by Auction Concluded as shown in Figure 52.

The final auction results are available on the Final Results screen (Figure 52). The Final Results screen replaces the Place Bids screen, and the screen title Final Results is located where Place Bids was while the auction was active.

Figure 52: Final Results screen

The screenshot displays the 'Final Results' screen. At the top, the header includes 'Auction 1 Sample Auction', 'Individual Bidder', 'Stage 1 [100%]', 'Auction Concluded', and a timer '06:02 PM ET 4/27/2018'. A left sidebar contains navigation options: 'Final Results', 'Activity', 'Round Summary', 'Posted Results', 'Messages', 'Auction Schedule', 'Downloads', and 'Auction Info'. The main content area shows 'Final Results' with a yellow notification box: 'You are the provisionally winning bidder of 1 permit, subject to official notification of auction results by public notice.' Below this, summary statistics are shown: 'Total PWB Amount \$1,100' and 'Total Net PWB Amount \$825'. A table lists the winning bid for permit MM-GEN002 (Alaska 1) with 1,000 bidding units, a PWB amount of \$1,100, and a net PWB amount of \$825. The bottom of the screen shows the user is logged in as 'Shesa Bidder' with 'Lock Screen' and 'Logout' buttons.

Permit	Description	Bidding Units	PWB Amount	Net PWB Amount
MM-GEN002	Alaska 1	1,000	\$1,100	\$825

This screen shows all items for which the bidder is the PW Bidder. All results are subject to verification by the Commission.

12.1. Posted Results

A more comprehensive summary of the bidder’s results and general auction results is shown on the Posted Results Screen (Figure 53). Information about the final auction status can be obtained on the public sites.

The top part of this screen displays discount information for bidders with bidding credits.

Figure 53: Final Results shown on Posted Results screen

Auction 1
Sample Auction

Individual Bidder

Stage
1 [100%]

**Auction
Concluded**

06:01 PM ET
4/27/2018

Final Results

Activity

Round Summary

Posted Results

Messages

Auction Schedule

Downloads

Auction Info

Logged in as:
Shesa Bidder

Lock Screen

Logout

Posted Results - My Bid Result

My Bid Result

Last Posted Round

(Generated: Friday, April 27 2018, 4:06:34 PM ET)

Filters: Round 4 My Permits

<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;">Total PWB Amount</td> <td style="width: 10%; text-align: right;">\$1,100</td> <td style="width: 40%;">Minimum Required Activity</td> <td style="width: 10%; text-align: right;">1,750 Bidding Units</td> </tr> <tr> <td>Total Net PWB Amount</td> <td style="text-align: right;">\$825</td> <td>Below Minimum Required Activity By</td> <td style="text-align: right;">750 Bidding Units</td> </tr> <tr> <td>Waivers Remaining</td> <td style="text-align: right;">2</td> <td>Current Eligibility</td> <td style="text-align: right;">1,750 Bidding Units</td> </tr> <tr> <td></td> <td></td> <td>Eligibility Reduction</td> <td style="text-align: right;">N/A</td> </tr> <tr> <td></td> <td></td> <td>Eligibility Next Round</td> <td style="text-align: right;">1,750 Bidding Units</td> </tr> </table>	Total PWB Amount	\$1,100	Minimum Required Activity	1,750 Bidding Units	Total Net PWB Amount	\$825	Below Minimum Required Activity By	750 Bidding Units	Waivers Remaining	2	Current Eligibility	1,750 Bidding Units			Eligibility Reduction	N/A			Eligibility Next Round	1,750 Bidding Units	
Total PWB Amount	\$1,100	Minimum Required Activity	1,750 Bidding Units																		
Total Net PWB Amount	\$825	Below Minimum Required Activity By	750 Bidding Units																		
Waivers Remaining	2	Current Eligibility	1,750 Bidding Units																		
		Eligibility Reduction	N/A																		
		Eligibility Next Round	1,750 Bidding Units																		

Permits

Permit	Description	Bidding Units	My Bid Result	PW Bidder	PWB Amount	Net PWB Amount
filter	filter	filter	filter	filter	filter	filter
MM-GEN001	Alabama 1	750	no bid	Bidder Three	\$910	\$910
MM-GEN002	Alaska 1	1,000	PWB	Individual Bidder	\$1,100	\$825

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13. Appendices

Appendix 1: System Troubleshooting

If you continue to experience problems after following the troubleshooting instructions, please call Technical Support at (877) 480-3201, option nine; (202) 414-1250; or (202) 414-1255 (TTY) (8:00 AM – 6:00 PM ET on business days).

Situation 1: Page cannot be displayed error message on first access

Figure 54: Internet Explorer connection error message

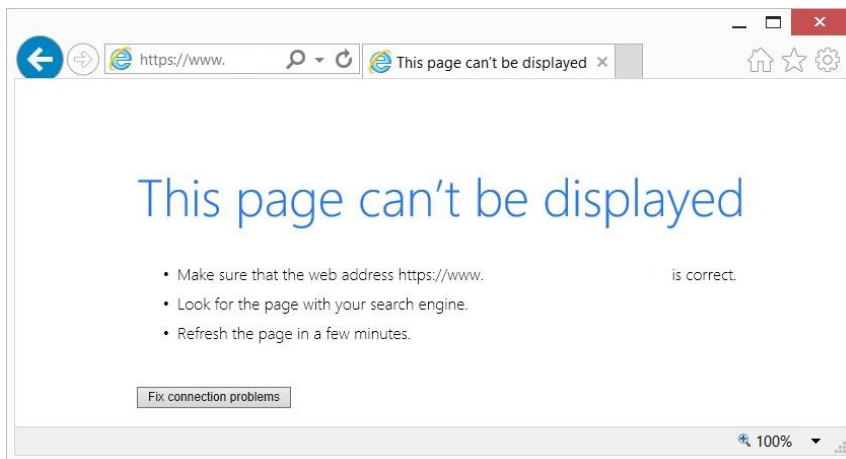


Figure 55: Internet Explorer error message when TLS 1.2 is disabled

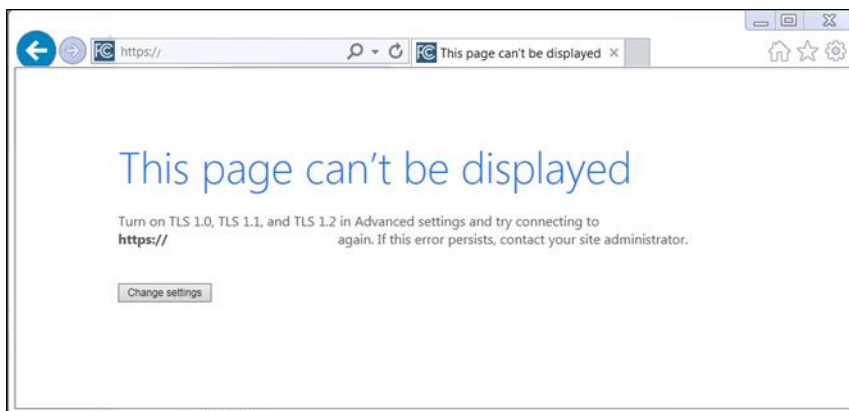
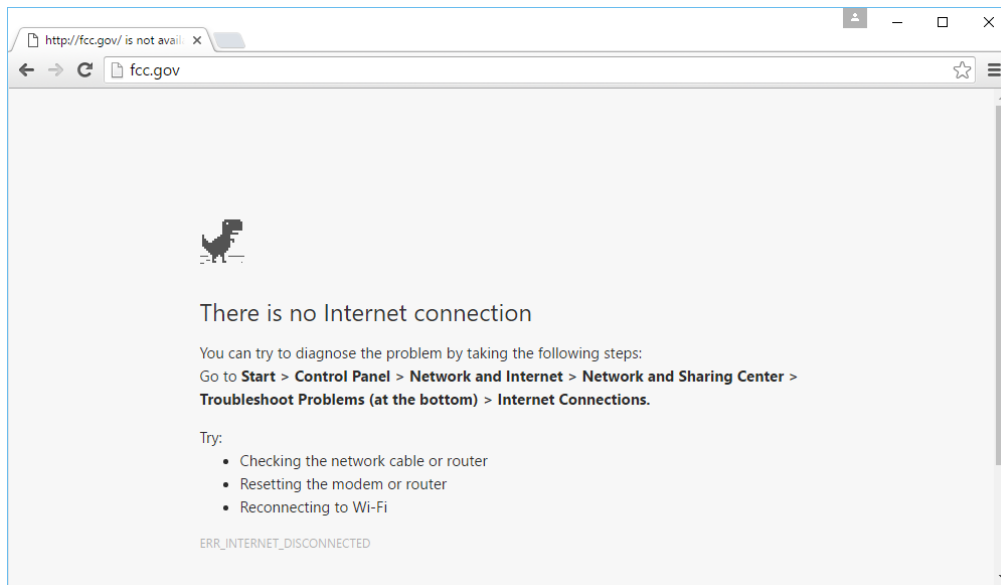


Figure 56: Google Chrome connection error message



If any of the screens shown above appear, complete the following steps:



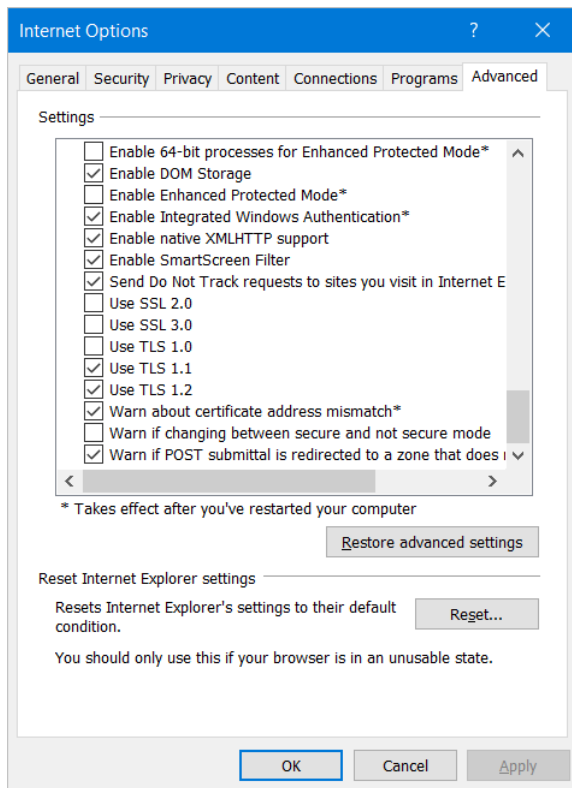
- Confirm that the computer has external internet access. Try to access a common site on the internet such as www.google.com. If this is unsuccessful, the computer does not have external internet access.
- Confirm that the URL for ABS is correct.
- Confirm that your organization has not blocked access to the site. Your organization may only allow you to access certain external web sites. Check with your IT department.
- You may not have selected the “OK” button when the message appeared stating that you are about to enter a secure site. Re-start the browser and try again ensuring you click on the “OK” button.
- Confirm that you are using the correct browser version (see system requirements in Section 2.1) by performing the following steps:
- Internet Explorer: First, click on the tools icon  which can be found in the top right-hand corner of your browser). Then click “About Internet Explorer.”
 - Chrome: First, click on the  icon (which can be found in the top right-hand corner of your browser). Then click “Help” followed by “About Google Chrome.”
- Confirm that TLS has been enabled on your browser.
 - Internet Explorer: this is done by clicking on the “Tools” menu and then “Internet Options” and then clicking on the “Advanced” tab. The following options must be ticked: Use TLS 1.2. This is shown in Figure 5757.
 - Chrome supports TLS 1.2 by default. No changes are required.
- Confirm that your corporate firewall accepts TLS.

Figure 57: TLS settings for Internet Explorer



Situation 2: Cookies must be enabled error message

ABS requires that cookies are enabled on your browser. If cookies are disabled, you will see a message stating that cookies should be enabled.

To enable cookies in Internet Explorer, complete the following steps:


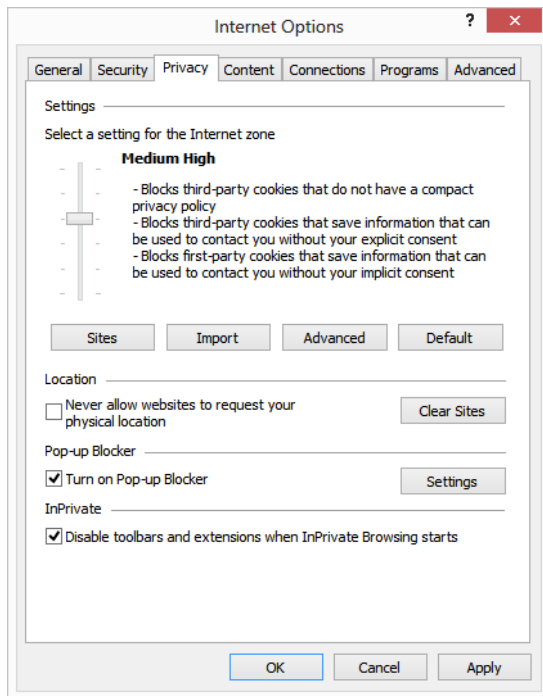
- Click on the tools icon  in the top right-hand corner of your browser, "Internet Options."
 - Click on the "Privacy" tab of the "Internet Options" box that appears; and
 - Change privacy setting to "Medium High" or lower, as shown in Figure 5858. Click on "OK."
 - Restart your browser.

Figure 58: Enabling cookies in Internet Explorer



To enable cookies in Chrome, complete the following steps:


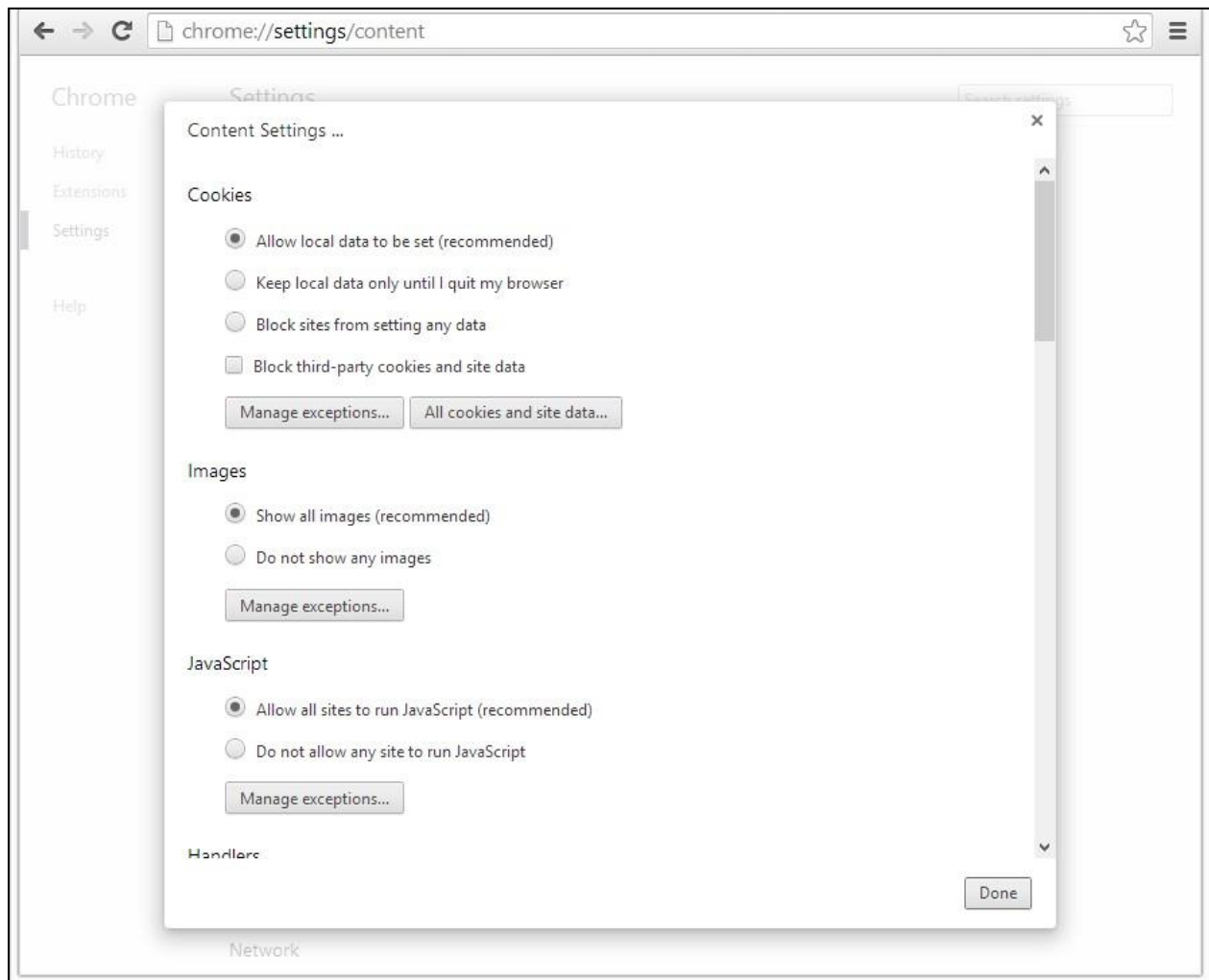
- Click on the tools icon  in the top right-hand corner of your browser
 - Click on “Settings” followed by the “Show advanced settings” link at the bottom of the “Settings” tab that appears.
 - In the “Privacy” section, click on the “Content Settings...” button to display a screen similar to that shown in Figure 5959.
 - Select the radio box “Allow local data to be set (recommended)” as shown in Figure 5959.
 - Click on “Done” to save the settings, and close the “Settings” tab.

Figure 59: Enabling cookies and JavaScript in Chrome**Situation 3: JavaScript must be enabled error message**

The auction bidding system requires that JavaScript is enabled on the browser used. If JavaScript is disabled, there will be a message stating that “JavaScript in this browser is not enabled or is not working.”

To enable JavaScript in Internet Explorer, either set the computer security level to its default or manually enable “Active Scripting” as described below.


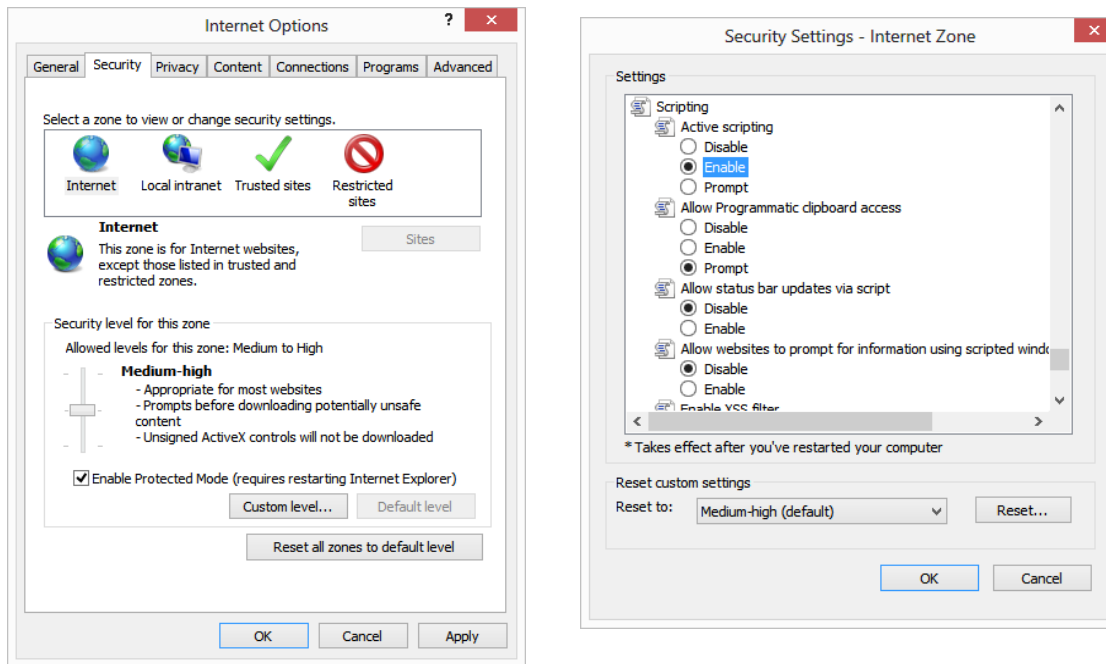

- Click on the tools icon  in the top right-hand corner of your browser. Click on the “Security” tab of the “Internet Options” box that appears.
- Either click on the “Default Level” button (which will return your security settings to “Medium-high” as shown in Figure 6060) or click on the “Custom Level ...” button and click on “Enable” for “Active Scripting” as shown in Figure 6060.
- Click on “OK,” and “OK” again if necessary.

Figure 60: Enabling JavaScript in Internet Explorer



To enable JavaScript in Chrome, carry out the following steps:

- Click on the tools icon  in the top right-hand corner of your browser, then “Settings,” and then “Show advanced settings” which appears as a link at the bottom of the “Settings” tab.
- In the “Privacy” section, click on the “Content Settings...” button.
- Select the radio-box “Allow all sites to run JavaScript (recommended)” (see Figure 5959). Click on “Done” to save the settings, and close the “Settings” tab. Click “OK.”

Situation 4: Page cannot be displayed error message when navigating to new screen

If you have been using ABS successfully and “page cannot be displayed” appears when you click on a link or a button, then complete the following steps:

- Click on the Refresh/Reload button to reload the page.
 - If that is successful, please verify any actions that you were taking when the message was displayed. If you were in the middle of placing a bid, those changes will have been lost, and you will need to select and resubmit that bid. All submitted bids that had the green check mark will remain unaffected.
- Re-navigate to the ABS URL and, if prompted, log in again.
- If that is successful, please verify any actions that you were taking, as discussed above.
- Your internet connection may have gone down. Confirm that your computer has external Internet access. Try to access a common site on the internet such as www.google.com. If this is unsuccessful, the computer does not have external internet access.

- ABS may be down. To confirm whether ABS is down, first confirm that you have internet access and then attempt to access the home page (see Section 2.2). If you are unable to view this page, or the page states that the auction bidding system is unavailable, ABS may be down. Check to see whether you have received an email from the FCC indicating that the system is unavailable. The FCC will inform you when ABS is expected to be available again.

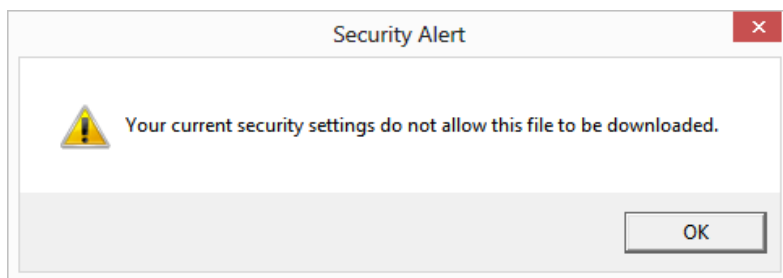
Situation 5: Page has expired error message when back button is clicked

Do not use the browser's back button to access a previous screen. To move between screens, use the links and buttons in ABS.


Situation 6: Security settings do not allow you to download error message

If Internet Explorer does not allow a file to be downloaded from ABS and displays the message shown in Figure 6161, it is because downloads have been disabled in your browser.

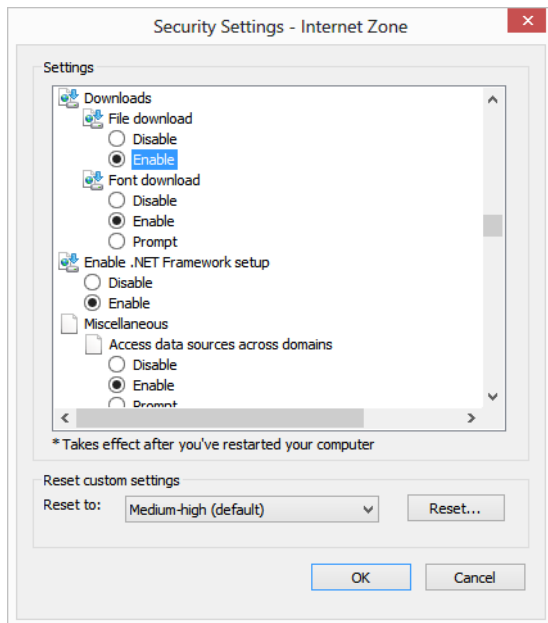
Figure 61: Security message in Internet Explorer



To re-enable downloads in Internet Explorer:

- Click on the tools icon  in the top right-hand corner of your browser and click on the "Security" tab of the "Internet Options" box that appears.
- There are two ways to proceed:
 - Click on the "Default Level" button (which will return your security settings to "Medium-High" as shown in Figure 6060 above, OR
 - Click on the "Custom Level..." button and click on "Enable" for "File Download" as shown in Figure 6262.
- Click on "OK," and "OK" again if necessary.

If you cannot change these settings in your browser, please check with your IT department or systems administrator. User access to these settings may have been disabled for security purposes, in which case you will need to have these settings changed.

Figure 62: Enabling downloads in Internet Explorer**Situation 7: Computer or web browser crashes**

If the browser crashes or the computer freezes, it is recommended that you reboot the machine (or use a different machine) to access ABS.

Please review any actions that you were taking when the computer crashed. If you were in the middle of submitting a bid, those changes will have been lost, and you will need to select and resubmit that bid. All submitted bids that had the green check mark will remain unaffected.

If the computer crashes while you are using ABS, you may access ABS using a different computer. When a user logs in to a second computer, whether the user has logged out of the first computer or not, the second login will automatically cause the user to be logged out of the first computer.

Situation 8: Certificate error message

If you access ABS and see a security message similar to that shown in Figure 6363 (for Internet Explorer) or Figure 6464 (for Google Chrome), you should not proceed. Please call Technical Support.

Figure 63: Certificate security error message in Internet Explorer

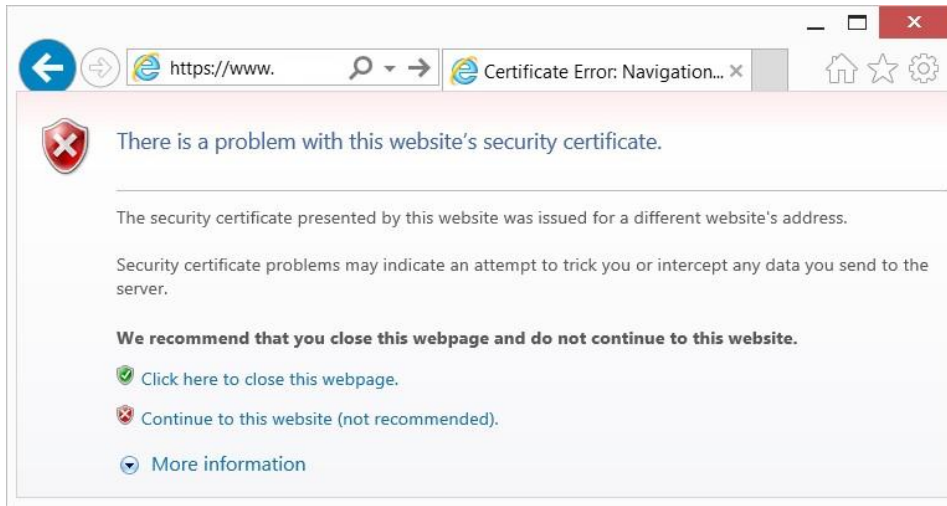
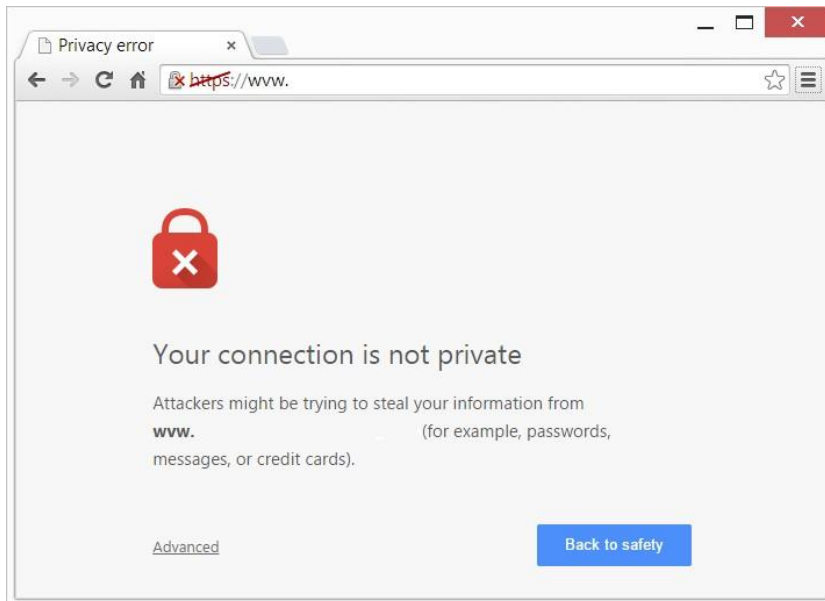


Figure 64: Certificate security error message in Google Chrome



Appendix 2: Data Type Definitions

The following is a guide to interpreting data types defined in this document. This guide is based on regular expressions used in XML standards.

Valid Data Types used in this Document

Character: A character is a single standard ASCII character. The following list has examples of valid ASCII characters:

- a
- D
- 3
- %

String: A string contains one or more characters and can contain whitespace. The following list has examples of valid strings:

- BEA001
- 005
- 588.3-593.3 MHz + 628.3-633.3 MHz
- Huntsville-Decatur-Florence, AL

Note that strings containing a comma that are included in a CSV formatted file need to include quotation marks around them. In the above example, “Huntsville-Decatur-Florence, AL” would be the correct format for the string in a CSV file.

Numeric: Numeric is a generic data type that covers a number of different underlying data types. As a result, anything defined as numeric could be any of the following:

- Decimal
- Integer
- Long

Integer: The integer data type is used to specify a numeric value without a fractional component.

- It’s assumed that any Integers defined in this document are unsigned and never include a (+) plus or (-) minus sign. Any signed Integers containing a + or – are considered invalid.
- If the Integer is of defined length then curly brackets should be used. E.g., {3} indicates the integer should be exactly 3 numbers long.

The following list has examples of valid Integers:

- 009
- 9
- 2147483647

The following list has examples of *invalid* Integers:

- -009
- +009

Dollar(\$):

- Dollar values are integers that optionally contain a leading dollar sign (\$) and comma formatting separators.

The following list has example of valid dollar amounts:

- 0
- \$1
- \$5,432
- 56565656
- 88,212

The following list has examples of invalid dollar amounts:

- -33,123
- \$44.00
- \$55,66,77
- 5675675.

Date/Time:

Handles timestamps.

This data type is typically used in reports and the format can include one of the following:

- yyyy-mm-dd: *2014-10-12*
YYYY-MM-DD HH:MI:SS **24-hour clock:** *2014-10-11 04:49:13*

Restricting values for a data type

Restrictions are used to define acceptable values for any given data type. The following lexicon is used when defining data types:

- Square brackets define the *pattern*.
 - e.g., [A-L] means only the uppercase letters A through L are allowed.
 - e.g., [U|D] means only the uppercase letters U or D are allowed.
 - e.g., [0-9] means only the numbers 0 through 9 are allowed
- Curly brackets define the *length* including whitespace.
 - e.g., {3} means the value has to be exactly 3 characters long.
 - e.g., {1,3} means the value has to be a minimum of 1 character and a maximum of 3 characters.
 - e.g., {0,50} means the value has to be a minimum of 0 characters and a maximum of 50 characters.

Examples for valid Data Types

Example 1:

The Data Type is defined as follows:

Integer
{3}

The curly brackets mean only a 3 digit integer is allowed.

Valid Values for example 1:

- 009
- 056
- 102

Invalid Values for example 1:

- 09
- 3502
- 1
- +12
- -35

Example 2:

The Data Type is defined as follows:

String
[A-L]{1}

The square brackets mean only the uppercase letters A through L are allowed and the curly brackets mean it must be exactly 1 character long.

Valid Values for example 2:

- B
- L

Invalid Values for example 2:

- a
- M
- 6

Example 3:

The Data Type is defined as follows:

String
[0-9]{3}

The square brackets mean only the numbers 0 through 9 are allowed and the curly brackets mean it must be 3 characters long.

Valid Values for example 3:

- 001
- 023
- 358

Invalid Values for example 3:

- 2
- 01
- 2026

Example 4:

The Data Type is defined as follows:

String
[0-9]{1,2}

The square brackets mean only the numbers 0 through 9 are allowed and the curly brackets mean it must be a minimum of 1 character long and a maximum of 2 characters long.

Valid Values for example 4:

- 4
- 04
- 41

Invalid Values for example 4:

- 123
- Blank or null value

Example 5:

The Data Type is defined as follows:

String
[US|CA|MX]{2}

The square brackets mean the pattern must be either US, CA or MX. The curly brackets mean it must be exactly 2 characters long.

Valid Values for example 5:

- US
- CA

Invalid Values for example 5:

- C
- USA

Example 6:

The Data Type is defined as follows:

String
(["BEA"][0-9] [0-9] [0-9]){6}

The square brackets inside the round brackets mean the pattern must be a concatenation of the text "BEA" followed by three single numbers, with each number ranging from 0 through 9. The curly brackets mean it must be exactly 6 characters long.

Valid Values for example 6:

- BEA002
- BEA356

Invalid Values for example 6:

- BEA0001
- BEA-005
- BEA-05
- BEA-0512
- BEA-2

Example 7:

The Data Type is defined as follows:

String
{0,50}

The absence of square brackets means there are no restrictions to the characters in this string. The curly brackets mean it must be a minimum of 0 characters long (i.e., can be blank/null) and a maximum of 50 characters long.

Valid Values for example 7:

- 588.3-593.3 MHz + 628.3-633.3 MHz
- Albuquerque-Santa Fe, NM

Invalid Values for example 7:

- Greenville-Spartanburg, SC-Asheville, NC-Anderson, SC

This is an invalid string which is longer than 50 characters including spaces.