NIFA Scoring System User's Manual

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Introduction & Overview

This User Guide will introduce the NIFA Scoring System and discuss how to use the system. Screenshots and other descriptions were accurate when published, but as the system evolves, there may be changes that do not get reflected in this User Guide. If you find any errors or mistakes, please be sure to send feedback to the proper address located in the help section at the end of this document.

The NIFA Scoring System is designed with three primary modules; Contest Scoring, Navigation Scoring, and Landing Events Scoring. These three modules are designed to be easily updated as needed and also allow for very specific role-based access for judges so that any judge only has access to the portions of the NIFA Scoring System that are needed to perform their specific judging assignments.

The Contest Scoring Module is the heart of the NIFA Scoring System and is responsible for administrative functions as well as scoring functions. The Contest Scoring Module is where SAFECON's are created (or modified as needed) as competitions in the scoring system, where users (Judges) are assigned roles in the scoring system, where teams and contestants are added to competitions, and where team advisors are able to verify the registrations of their team members. The scoring functions of the Contest Scoring Module are where individual contestant results are entered and where the ranking and compilation of individual and team scores takes place to determine the overall competition results. The Contest Scoring Module can also receive scores directly from the Navigation and Landing Events Scoring Modules.

The Navigation Scoring Module handles the administrative functions of creating navigation routes and assigning judges to specific roles within the Navigation Event. It also handles the computations for scoring the results of the Navigation Event and can export those results for download as a .csv file or directly to the Contest Scoring Module.

The Landing Events Scoring Module handles the administrative functions of assigning judges to specific roles within the landing events and the creation of the Electronic Landing Cards for use in the landing events. The Landing Events Scoring Module also handles the computations for scoring the landing events and can export those results for download as a .csv file or directly to the Contest Scoring Module.

If you have questions or problems with any aspects of the NIFA Scoring System, please see the help section at the end of this User Guide for troubleshooting and contact information to obtain assistance in resolving whatever problems you experience.

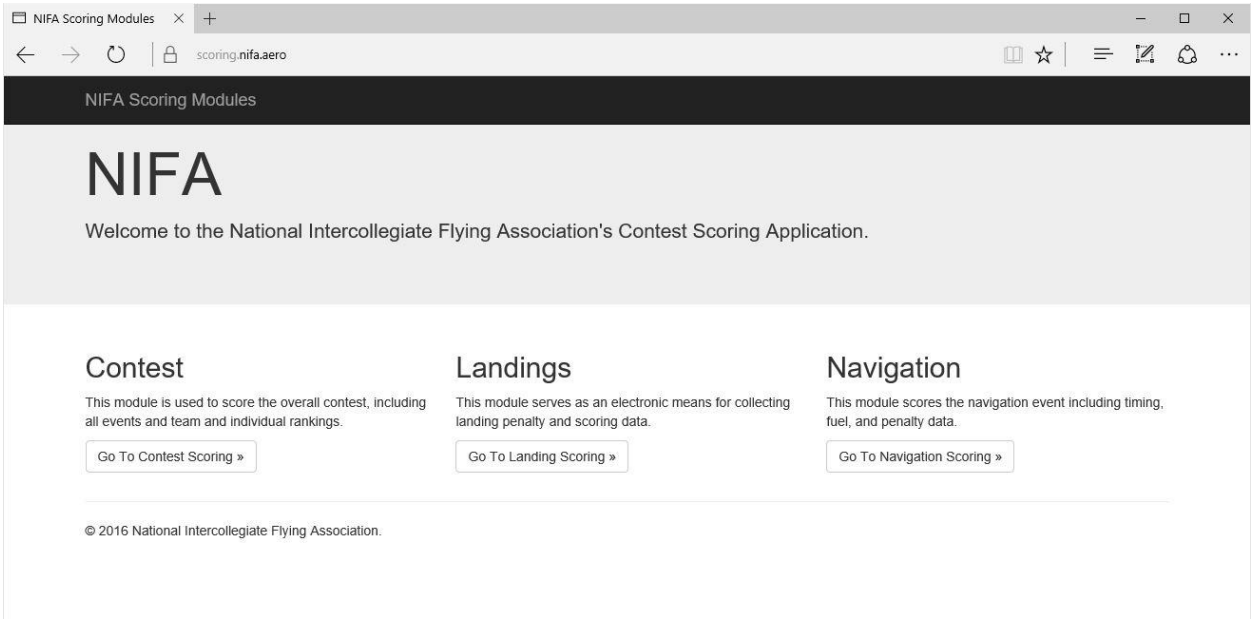
Access & Login

Access

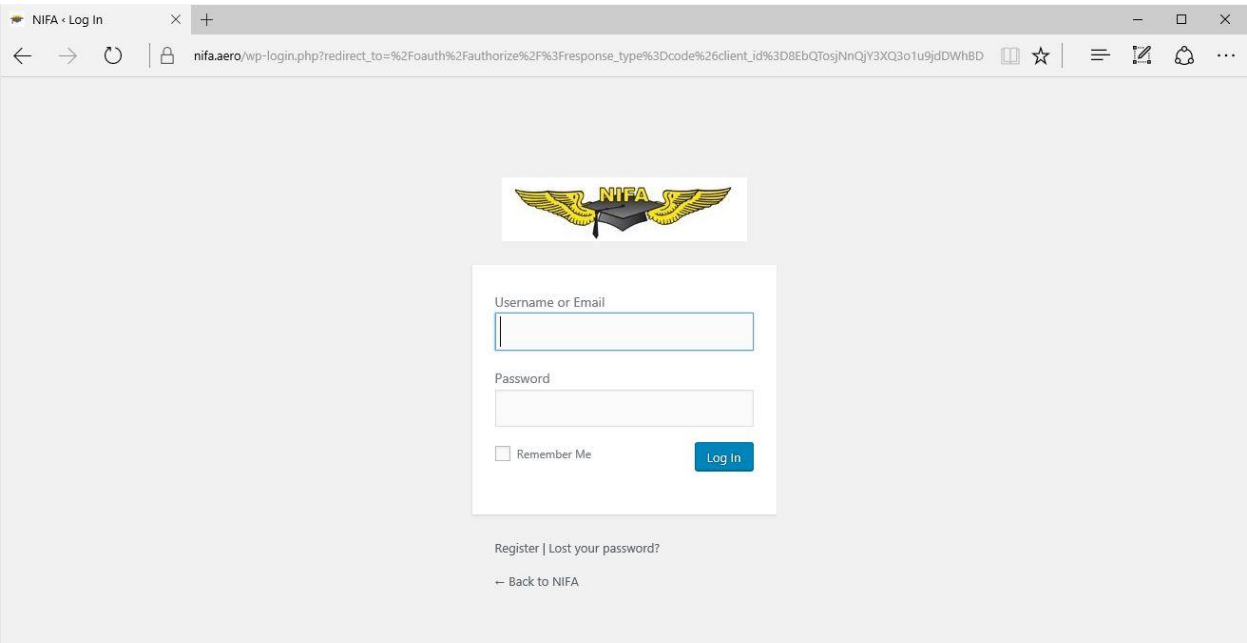
To access any of the modules of the NIFA Scoring System, proceed to https://scoring.nifa.aero and choose which module you would like to access. Alternatively, if you are logged in to the NIFA website at https://nifa.aero and are registered as a Judge, you will see a link under the drop-down menu Judges ➔ Judge's Corner ➔ NIFA Scoring System.

Logging In

In order to log in to the NIFA Scoring System, you must have an account on https://nifa.aero. If you do not have an account, please go to https://nifa.aero/judges and complete the short form on the right hand side to create your account and register as a Judge. When you access the NIFA Scoring System, you will see the following screen:



Choose which module you would like to access and click on the button to access the login screen. If you are already logged in to your nifa.aero account, you will automatically be passed to the home screen for that module. If not, you will be prompted to login as seen below.



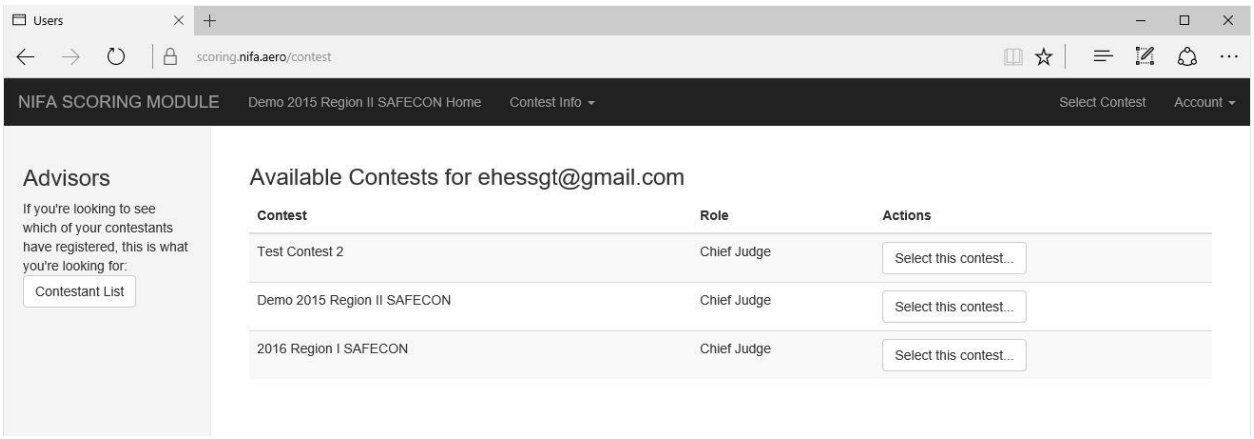
Your login credentials are the Username or Email and Password for your nifa.aero account. Enter your credentials and click on "Log In." Depending on how many times you have logged in and out of the system recently, you may need to answer a short question to ensure you are not a bot trying to access the scoring system. Once you have logged in, you will be passed to the home screen for that module which will ask you which contest you would like to work. If you do not see any options, or you do not see the contest you are looking for, this simply means you are not authorized to access that module or have no judging roles within that module.

Contest Scoring Module - Administrative Functions

This section of the NIFA Scoring System User Guide will discuss the administrative functions of the Contest Scoring Module. Scoring functions will be discussed in a separate section of this User Guide. This section will walk through the layout and navigation of the Contest Scoring Module, the creation of a contest (or competition), adding users to the contest, adding teams to the contest, adding contestants to the teams, assigning contestant ID numbers, and showing the advisors a list of registered contestants, and navigating around the Contest Scoring Module.

Home Screen, Layout, & Navigation

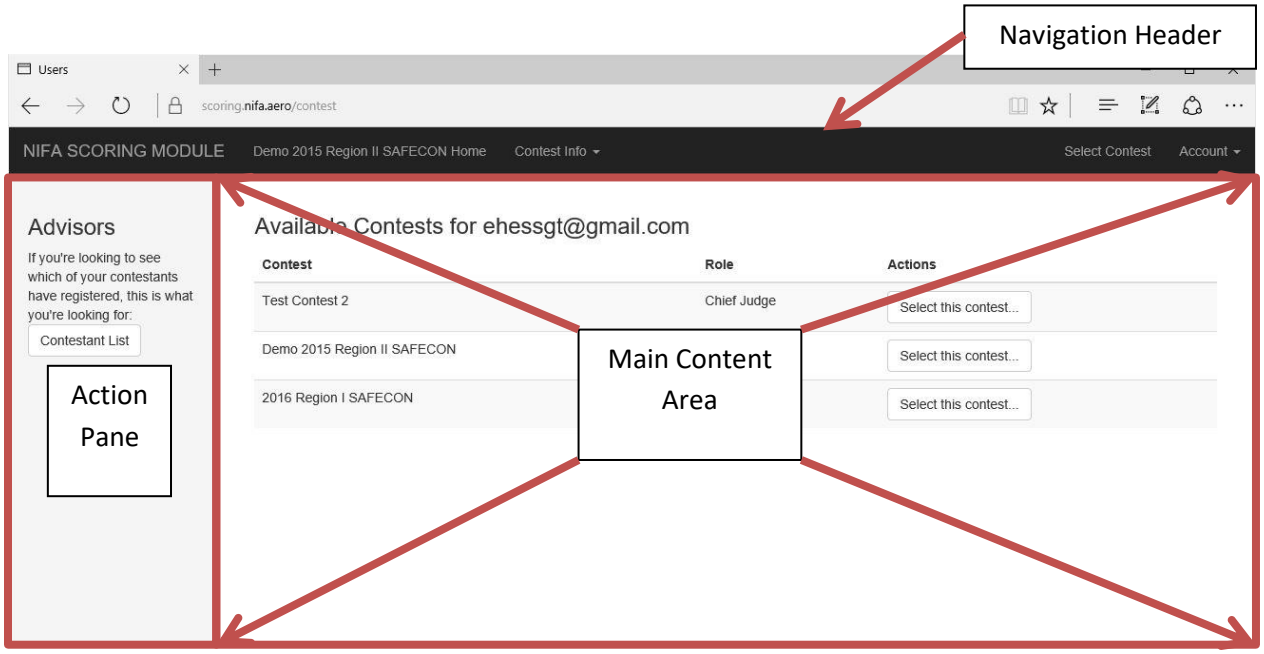
Once you have successfully logged in to the Contest Scoring Module, you will be directed to the home screen:



The home screen will list all contests that you are currently or previously assigned to. If you have a blank screen, this simply means you have not been assigned to any contests. To begin working on a contest, simply click the button to select it. Once you select a contest, you will be able to enter scores, and if you are the Chief Judge, handle some administrative functions as well. Before we walk through the creation of a contest, we will discuss the layout and navigation of the Contest Scoring Module.

Layout & Navigation

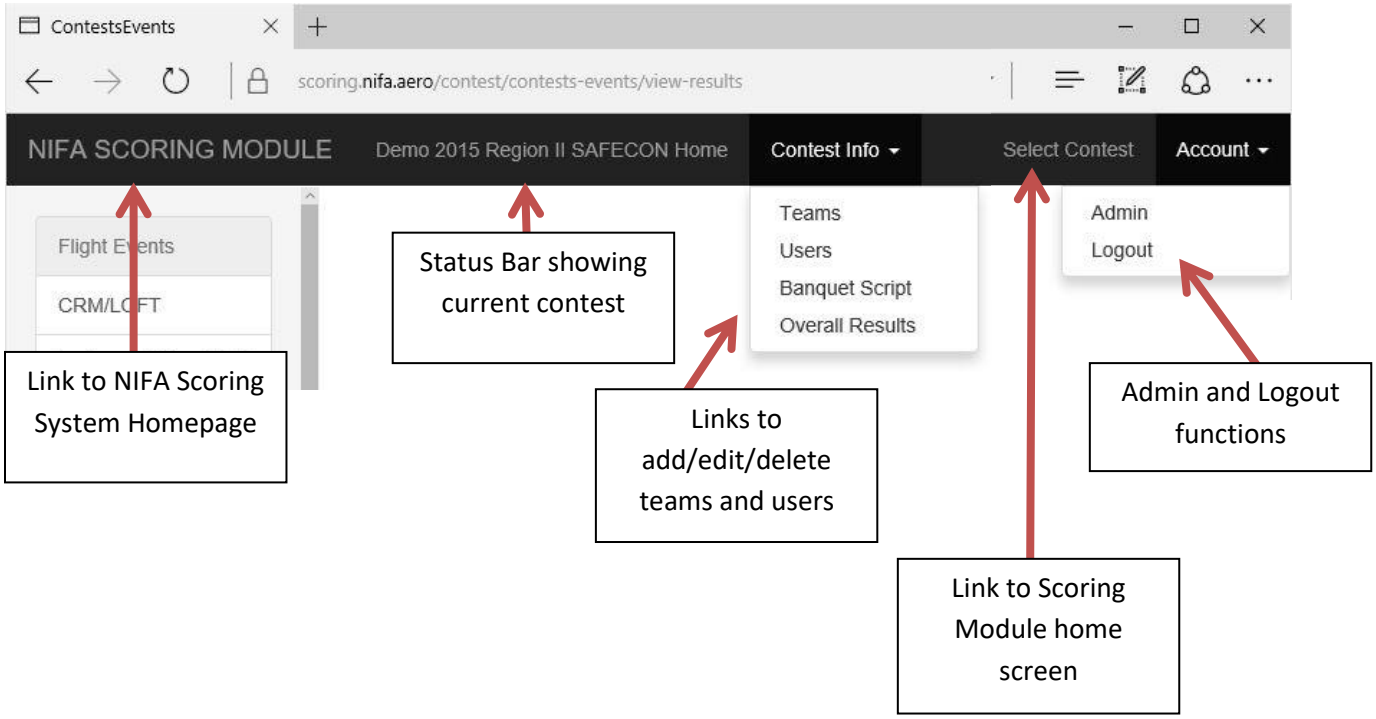
The Contest Scoring Module is laid out into three sections: Navigation Header on the top, Action Pane on the left side, and the Main Content Area in the middle of the page.



The Action Pane on the left side will change depending on what you are doing. On the home page, you will see the registration verification link for Advisors. From this pane you will be able to call up the dialog to add new users, add new teams, or select events for which you wish to enter scores.

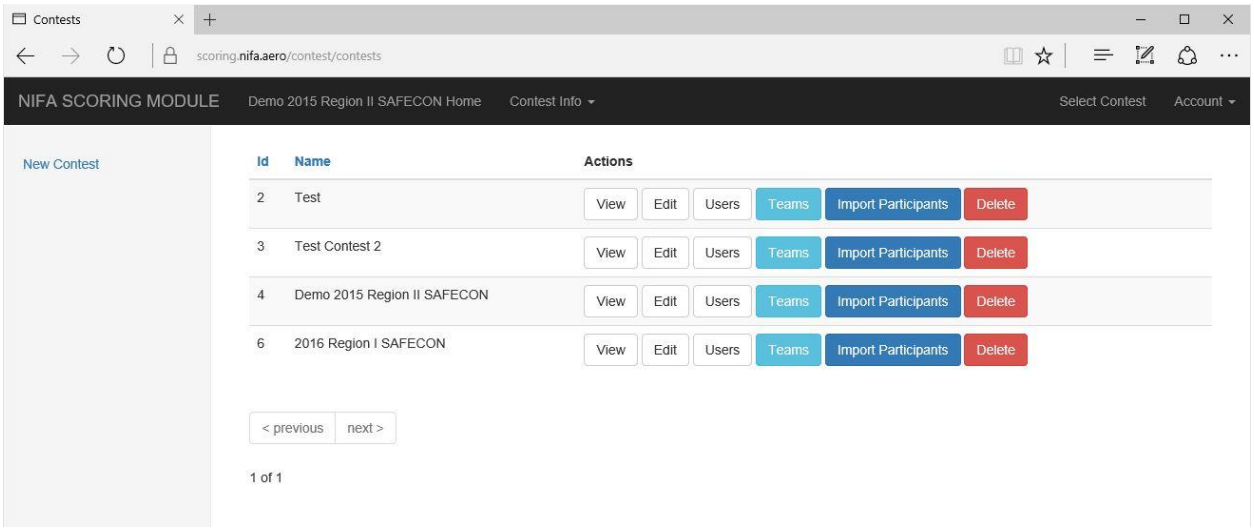
The Main Content Area is used for most of the data entry into the scoring system. From here you will be able add or edit the users, teams, and contestants. This is also where the primary scoring data will be input.

The Navigation Header has several quick links to help you easily move around the Contest Scoring Module. On the left side is a link that will allow you to return to the NIFA Scoring System homepage. Immediately to the right of that link is a status bar showing what contest you are currently working on. To the right of that status bar is the "Contest Info" drop-down menu that allows easy access to the pages where you can add, edit, or delete teams (and their contestants) and users of the current contest. Also quick links to a formatted script for the banquet (which reads from last place to first place in each event) and overall results are located here. Next to that is a link to "Select Contest." If you are registered for multiple contests, this will take you back to the Contest Scoring Module home screen where you can select the contest you need to work on. Finally at the far right is a drop-down "Account" where you can access the Admin functions (if authorized) to create a contest and the option to Logout of the scoring system.

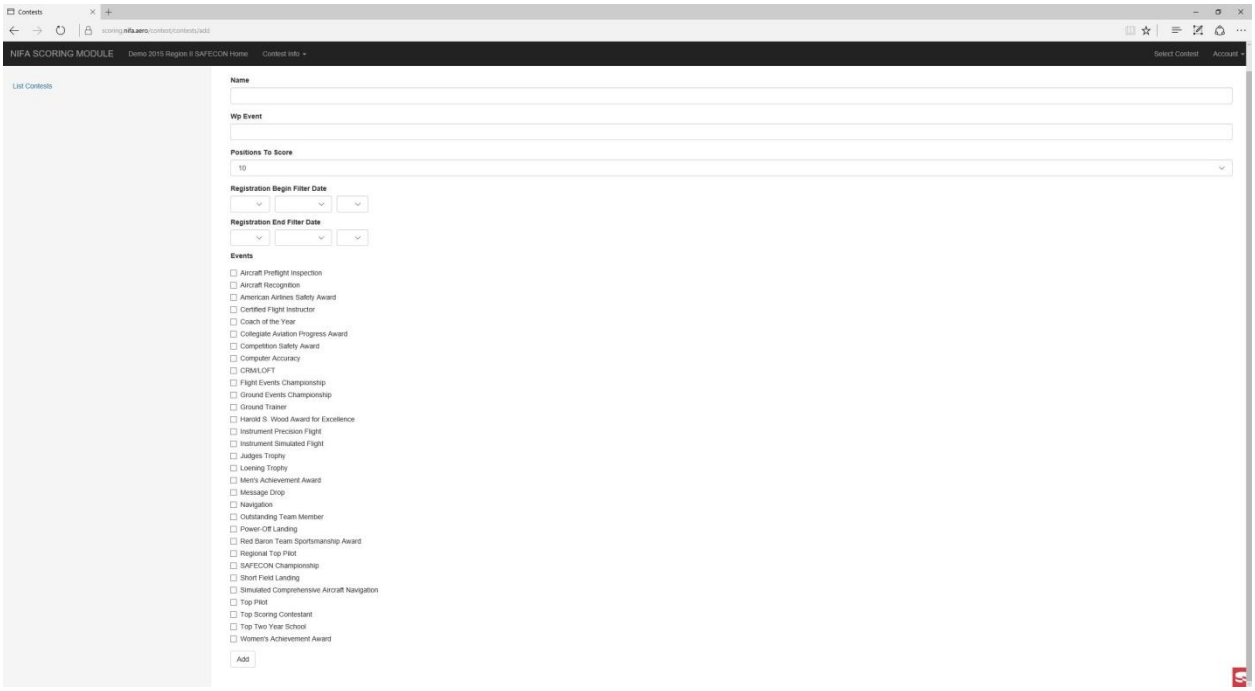


Creating a Contest

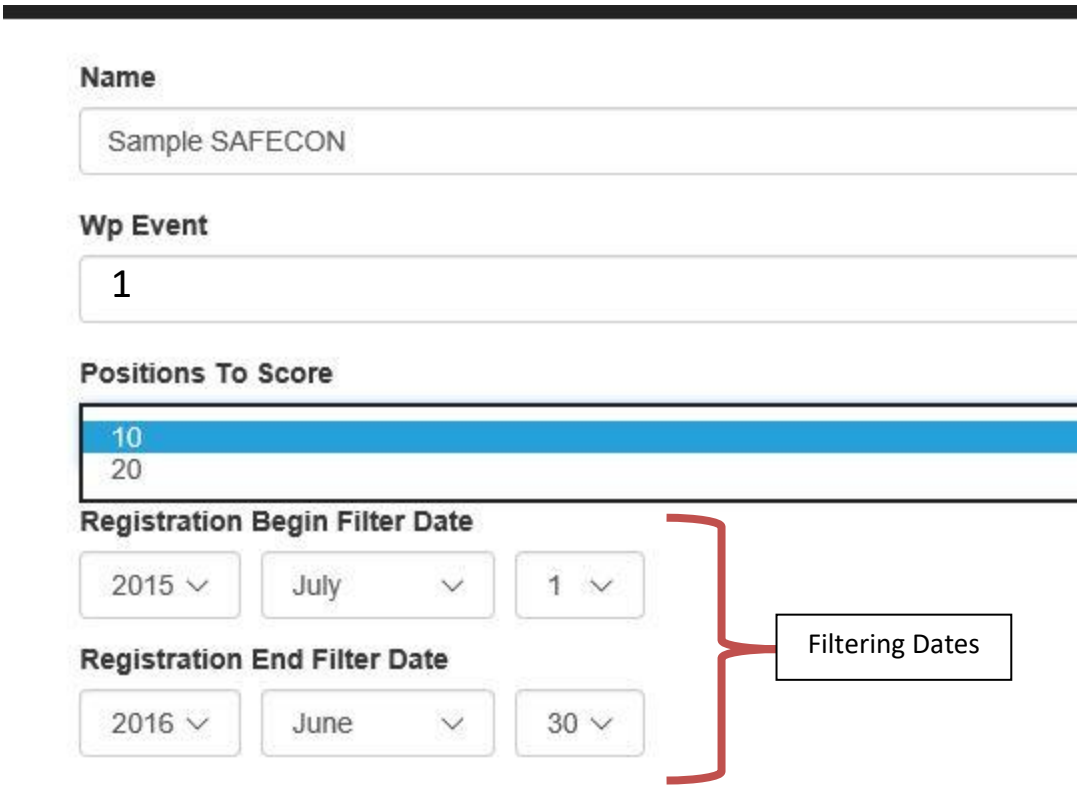
To create a contest, once you have logged in and reached the Scoring Module home page, you will need to access the Admin page. To do this, click on the "Account" drop-down menu and then click on "Admin." You will see the following screen:



This screen will show all the contests that have been created that you are authorized to view in the Main Content Area. To create your contest for your SAFECON, look to the Action Pane on the left side and click on "New Contest." You will now see this screen:

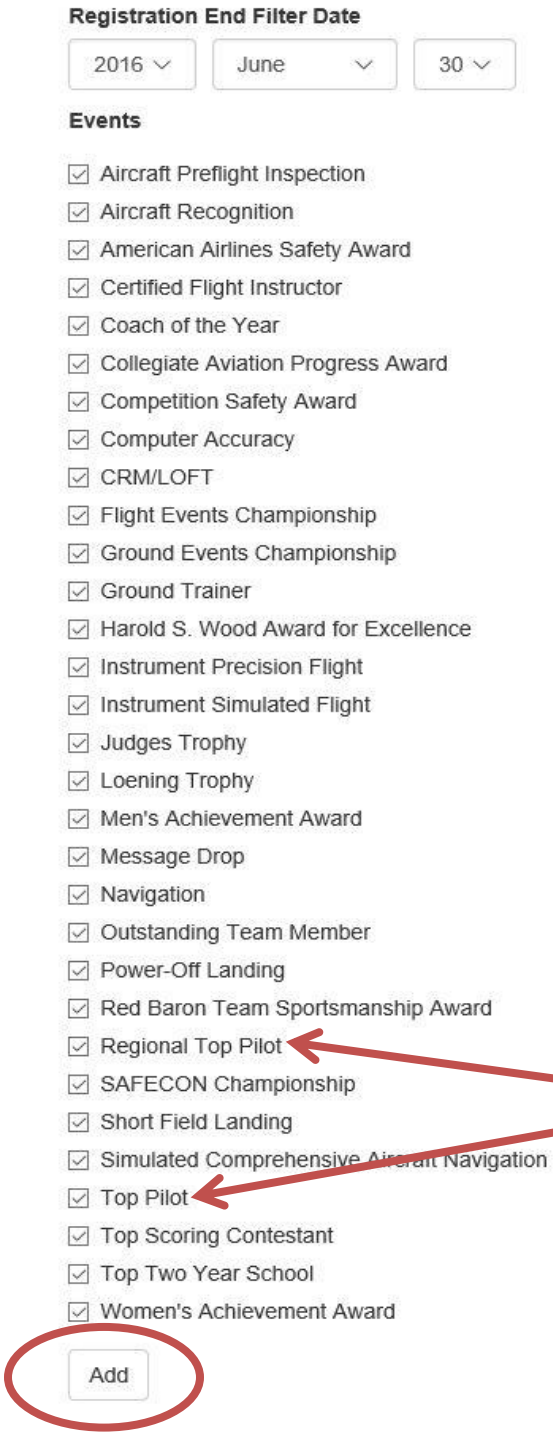


In the top half of the screen, enter the information for your competition. In this example, we will create the contest "Sample SAFECON." You can name your competition any way you like, however it is suggested to name it in the format [Year] [Scope] SAFECON, such as "2016 Region I SAFECON." Please use Roman Numerals for consistency when numbering a region. In the Wp Event field, you must enter a number, but the number does not matter. This field is not yet active. Under "Positions To Score," choose top 10 or top 20 scoring. We will choose top 20 for this example. For the registration filtering dates, enter the current NIFA competition year. The NIFA competition year runs from July 1 through June 30. In this example, we have set the 2015-16 competition year.



The filtering dates are important when adding contestants to a team. These dates must only reflect the current NIFA competition year so that extra students are not accidentally imported into the scoring system. Erroneous contestants can be deleted, but it will be much easier if the import is as clean as possible to start.

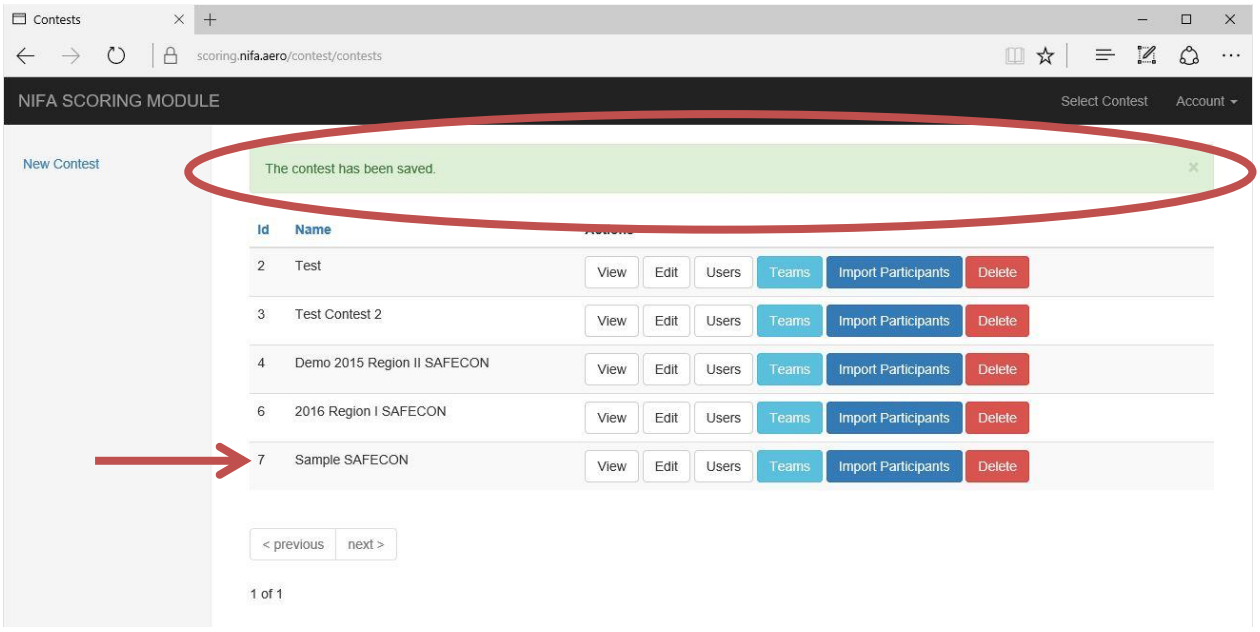
Once you have named your contest, selected the positions to score, and set up your registration filtering range, you now can choose what events will be competed at your contest. From the list of events, simply place a check mark next to each event you will compete and then click on the "Add" button at the bottom of the page. For our Sample SAFECON, we will select all the events.



NOTE

For a Regional SAFECON, select the "Top Pilot" option and NOT the "Regional Top Pilot." The Regional Top Pilot award is presented at Nationals to each of the Top Pilots from the regions.

After clicking “Add” you will see this confirmation screen:



You will see the green confirmation bar at the top and you will now see our contest, “Sample SAFECON” in the list of contests. Our contest is now created.

Once our contest has been created we have six options:

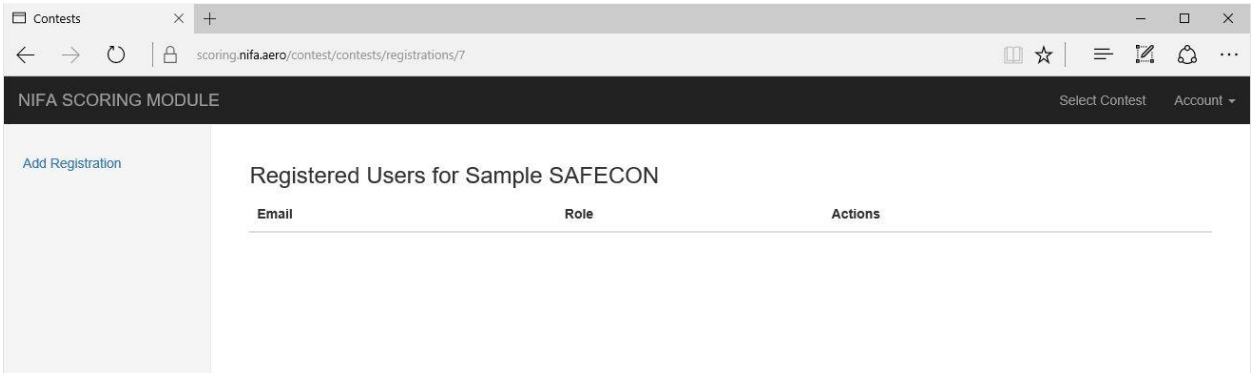
- View: Shows basic information in the Main Content area about the contest. The Action Pane on the left when viewing will provide links to edit and delete the contest and links to come back to this event list or add a new contest. Those links will do the same thing as the Edit and Delete buttons shown above.
- Edit: This will take you back to the page to create a contest with all of the current settings for your contest selected. If you need to change top 10 or top 20 scoring, add or remove events, you would do that here and then click “Save” when finished.
- Users: This is where you add judges to your contest.
- Teams: This is where you add teams to your contest.
- Import Participants: This allows you to import student competitors to your contest. You must set up your teams before importing contestants.
- Delete: Deletes the contest and all data associated with it.

These options will be discussed in the following sections of this User Guide.

Adding Users

Now that we have successfully created our contest, the next step is to add users, judges, to the contest. Due to the modular design and access controls in place, very few people actually need access to the Contest Scoring Module! Ideally, the Contest Scoring Module should be restricted to the fewest number of people who need it. At Nationals, this would be the Chief Judge, Associate Chief Judge, Scorekeeper, Assistant Scorekeeper, and the Senior Chief Judge. At a regional competition, this list could be even shorter and could be just one or two people. Do not grant access to the Contest Scoring Module simply because a judge at your competition wants access to it. There is no need for anyone other than the above mentioned people to have access to your competition's scoring module.

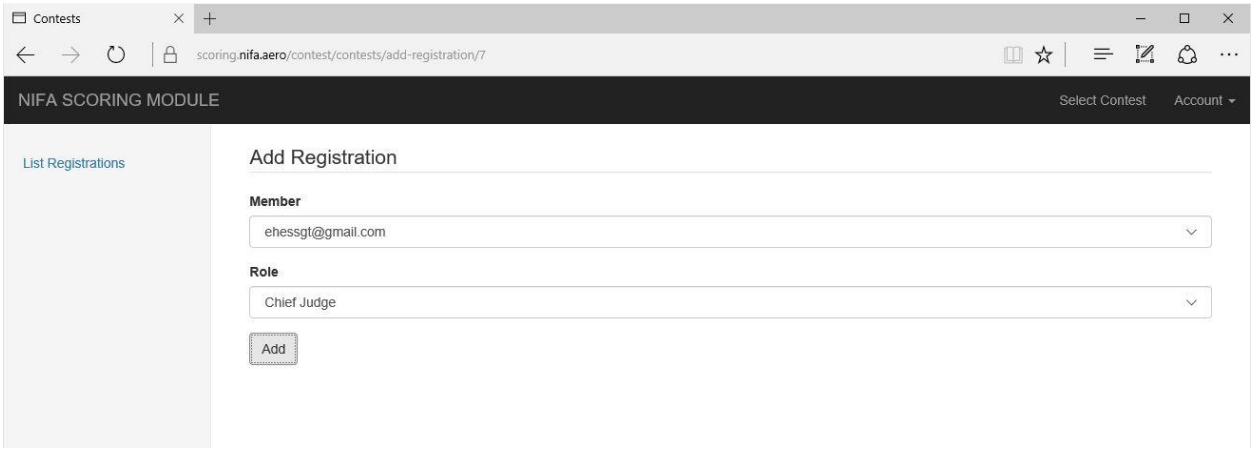
From the Admin screen (accessed by the drop-down Account ➔ Admin) locate your contest, Sample SAFECON in our example, and click on the "Users" button. You will see this screen:



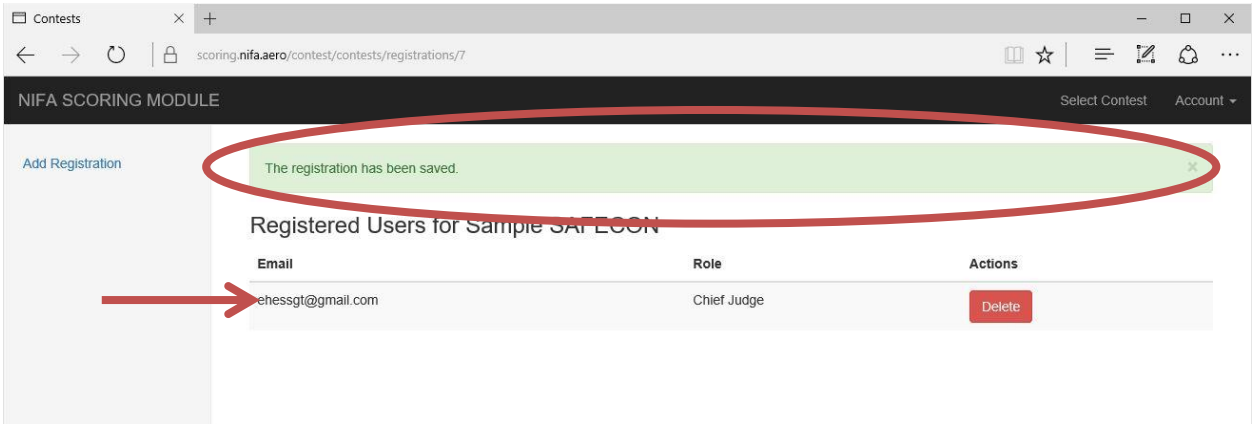
You will notice there are no registered users for Sample SAFECON. You will need to add yourself to the contest first. In the Action Pane on the left, click the link for "Add Registration." You will see this screen:

The "Member" drop-down field contains a list of every email address for all of the individuals who have an account on nifa.aero. Either scroll down to find, or begin typing, the email address associated with

the nifa.aero account for the individual you wish to add. After selecting the individuals email address from the list, establish their role for the contest and then click on the "Add" button. The Chief Judge role has added capability that will allow them to add, delete, and edit users, teams, and participants for their competition. The other roles do not have this capability. Again, only grant Chief Judge access to those who need it, which is generally just the Chief Judge, Associate Chief Judge, and maybe Senior Chief Judge.



You will receive this confirmation screen and see the individual with their role listed.

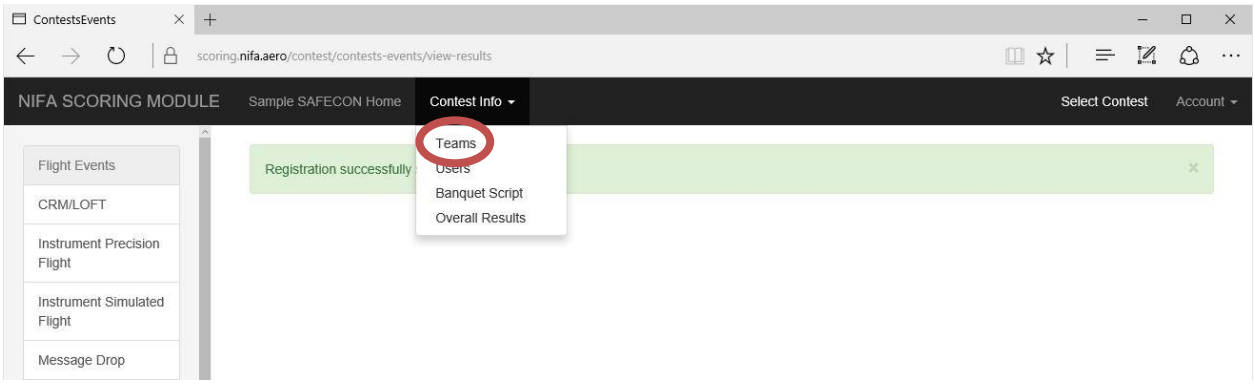


You can continue to add registrations as needed from this page and you can delete registrations as well. Once you have added a Chief Judge, you can delegate the adding of users to them. Once they log in and select your contest, they can add users by referencing the "Contest Info" drop-down menu in the Navigation Bar at the top.

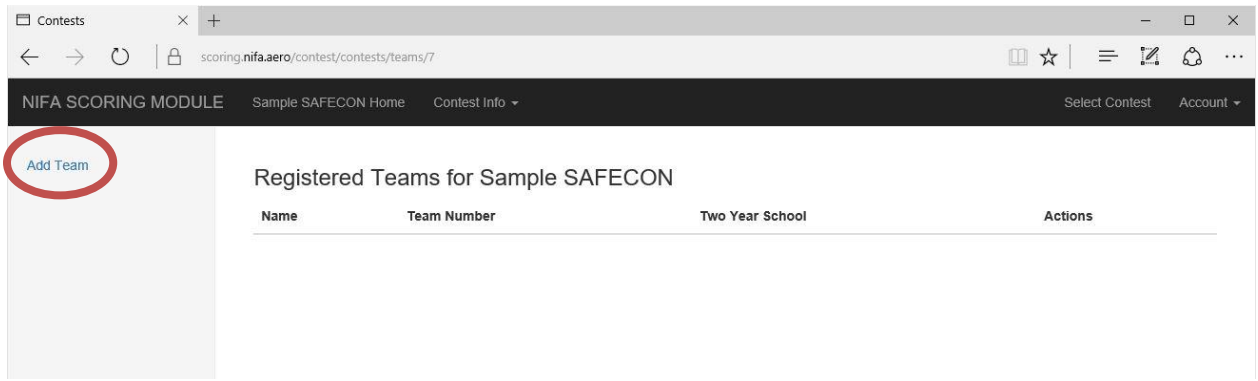
Again, only the above listed people should be granted access to the Contest Scoring Module. The Navigation and Landings Judges do not need access to the Contest Scoring Module; they only need access to their respective modules. Now that we have added users to our contest, we will need to add teams.

Adding Teams

Teams can be added from two locations, the Admin page ("Account" drop-down menu ➔ "Admin") or by logging in, selecting your contest, and then using the "Contest Info" drop-down menu from the Navigation Bar and selecting "Teams." If the Chief Judge is adding the teams, they will only be able to access it from the Navigation Bar "Contest Info" ➔ "Team" drop-down menu.

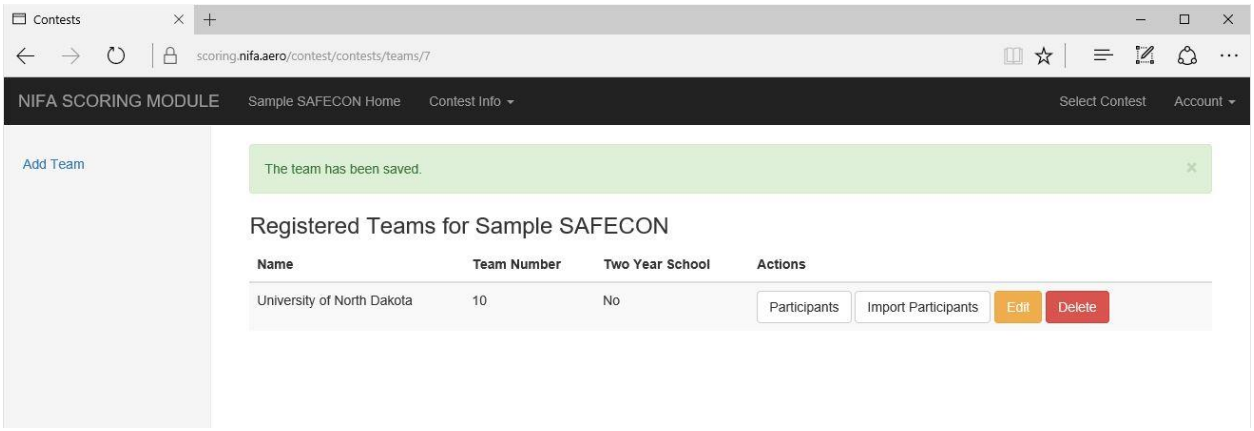


Once selected, you will get the following page:



To begin adding teams, click on the "Add Teams" link in the Action Pane on the left. You will see this page:

Select the team you wish to add from the drop-down menu and, if appropriate, check the “Two Year School” box. Click the “Add” button when you are done and look for this confirmation screen:



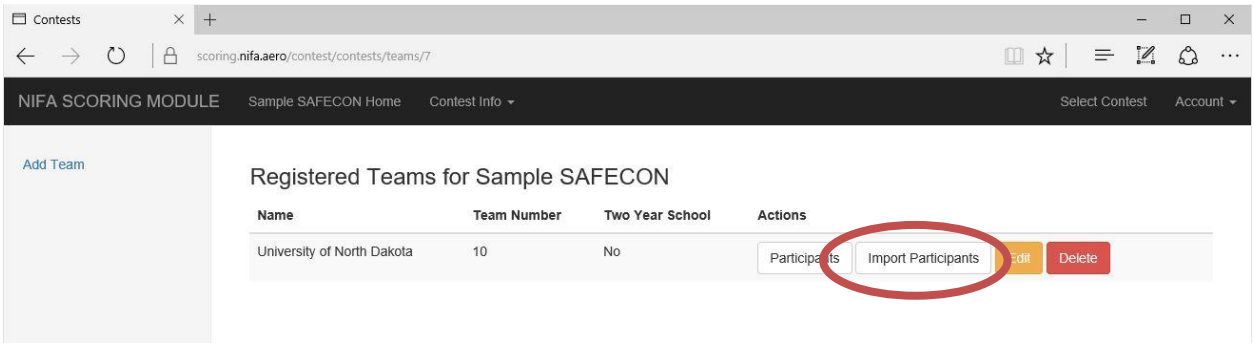
We have successfully added a team to our Sample SAFECON and we can see the team number assigned to that school and whether or not it is a two year school. We also have four actions we can perform:

- Participants: This button will allow us to view a list of student competitors who have been imported or added. Also, when selecting “Participants” the Action Pane on the left will allow us the options of “Add Participant,” to manually add a student competitor or “List Teams,” to come back to this page.
- Import Participants: This button will perform an automatic import of all students who have a valid NIFA membership during the date range established when the contest was set up. It will return a list of only those students who are associated with that school and hold a current NIFA membership.
- Edit: Allows us to edit the two year status of the school.
- Delete: Deletes the school and the school’s participants from the current contest.

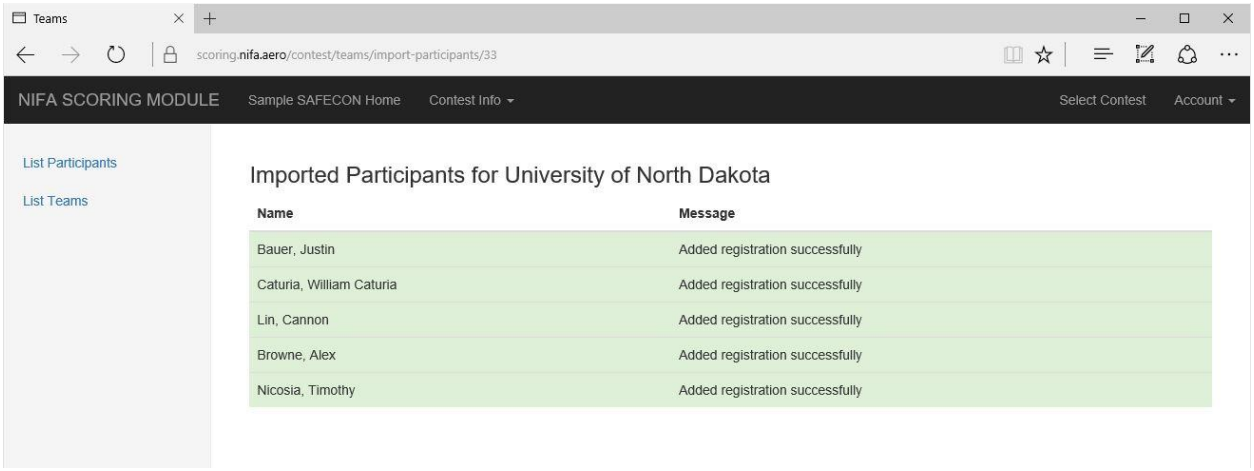
Now that we have added a team to our contest, we need to add participants to that team.

Adding Participants

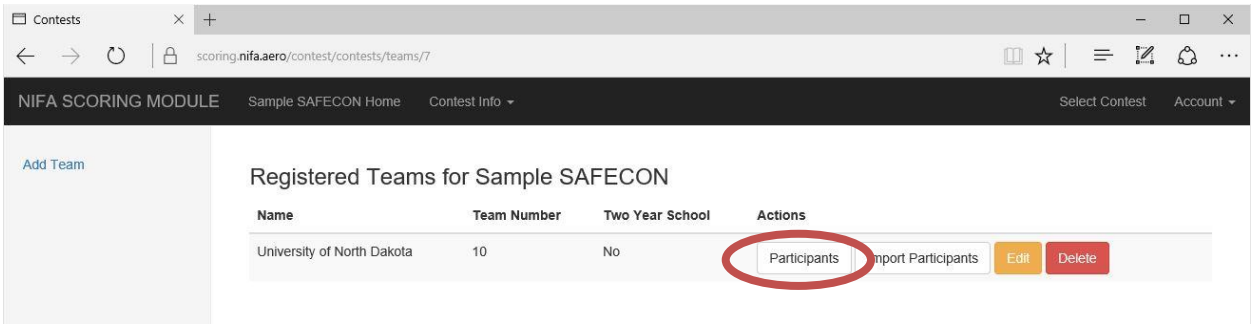
Participants can be added in two ways, imported or manually. Normally, you will add participants by importing them in bulk. The option to manually add participants should be the exception to the rule, as there is not a check performed to see if the contestant has a current NIFA membership. It is important to note that you cannot add participants until you have added their team to the competition. To import participants, navigate to the list of registered teams (“Contest Info” drop-down ➔ “Teams”) and then click on the “Import Participants” button next to the team you wish to add participants for.



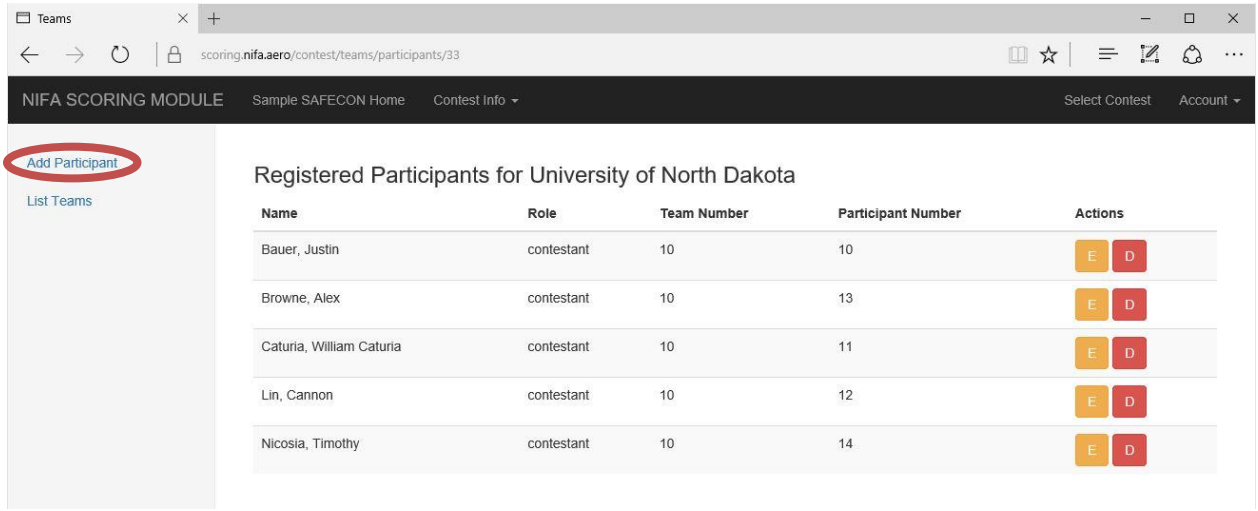
The website will pop up a dialog asking if you are sure you wish to continue with the import. If you wish to continue with the import, accept the dialog and the system will search nifa.aero for all students associated with that team that have a current NIFA Membership and will return the following confirmation screen showing who was imported.



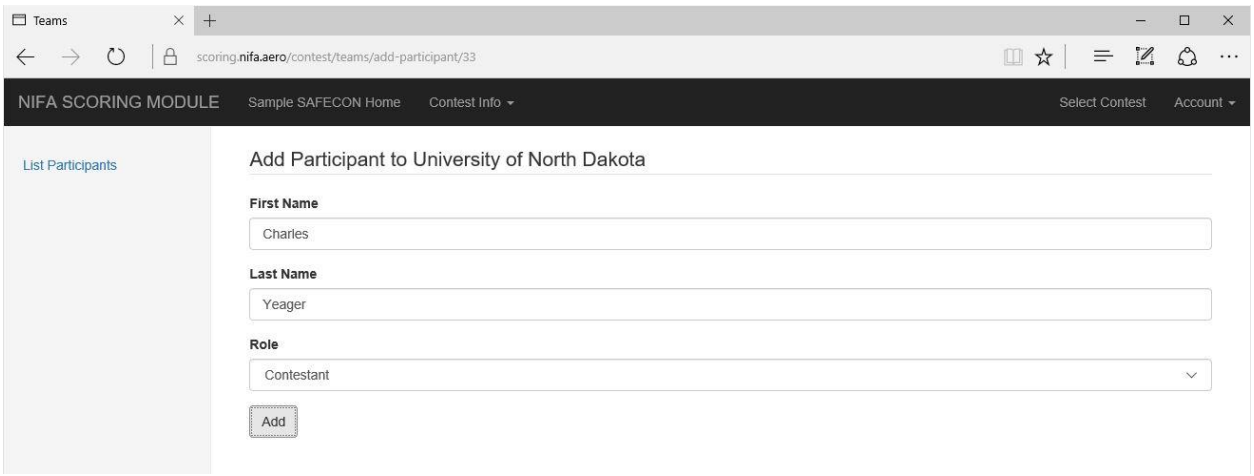
To import participants for other schools, click on “List Teams” in the Action Pane to return to the school list. To manually add a contestant who was not on the import, return to the school list and then click on the “Participants” button next to the school for which you wish to manually add a participant.



Clicking on the “Participants” button will bring up a list of all participants who are currently in the scoring system for the selected contest.



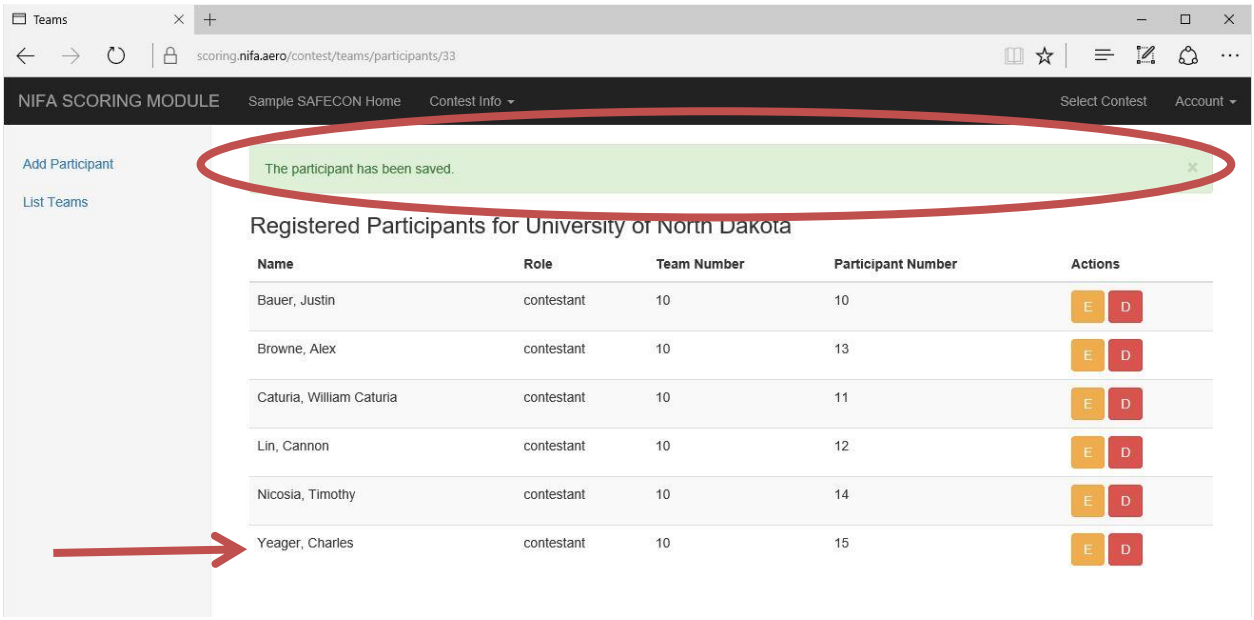
On the left side in the Action Pane you will see the option to “Add Participant” as well as a link to return to the school list. Click on “Add Participant” to manually add a participant.



Type in the requested information and then click on the “Add” button to add the contestant to that team. Under the “Role” drop-down menu there are three choices:

- Advisor: Select this option only if the individual is the registered advisor for the team.
- Coach: Select this if the individual is a Coach.
- Contestant: Select this if the individual will be competing. It is possible for an individual to be all three of these. If this is the case, select the contestant option to ensure they are available for scoring.

You will receive the green confirmation bar and see your contestant added to the list when they have been successfully added to the participant list for that team.



it is important to note that adding a contestant manually does not check to see if they have a current NIFA Student Membership.

While looking at the list of registered participants for a team, we have two options in the Main Content Area that we can perform for each participant, “E” for Edit and “D” for Delete.

- Edit: Not currently active
- Delete: Allows us to delete the contestant. Since the import function calls up all students with a current NIFA Student Membership associated with that team, it is very possible that it will return more participants than are actually competing at the SAFECON. While it doesn’t affect the scoring system to have extra competitors who are not present, we should delete any participants who are not actually in attendance to maintain accurate attendance records for NIFA. This can be verified by each schools advisor.

You have now successfully added participants for the contest to this team. This process will have to be repeated for each team in the contest. It is recommended to start this process early and periodically run a new import on each team to continue to add students as they register their NIFA Student Memberships. Each import will add to the current list of participants and will not delete or modify and currently registered participants.

Contestant ID Numbers

The Scoring Module will automatically assign contestant ID numbers to each participant who is added either through an automated import or added manually. The ID number can be seen for each participant by navigating to the Teams page and clicking on Participants to view the participant list for each team. The ID number is four digits where the first two digits are the school's team number and the last two digits are the participant's number assigned by the system. In the above graphic, the contestant ID number for Charles Yeager would be 1015. As previously mentioned, if you were to Import Participants multiple times for a team the system will only add to the existing list of participants and contestant ID numbers, it will not change any data that has already been entered into the system.

Advisor Contestant List

This list will be created after you have added participants to a team. When the registered advisor logs in to the system, they will be able to view a list of participants from their team who have successfully been registered in the NIFA Scoring System for the current contest. Advisors should be encouraged to periodically review this list to make sure their students have successfully purchased their NIFA Student Memberships for the current contest. Also, since this list is generated and updated only when participants have been imported or manually added, it is recommended to remind Advisors not to contact the judging staff every day to ask if a student has registered. It would be recommended that the Chief Judge publish a schedule for when the contestant lists will be updated so Advisors can check back periodically based on that schedule.

Contest Scoring Module – Scoring

Reserved for future use.

Due to time constraints, I am unable to complete this section at this time. It is here simply as a place holder. The scoring functions are fairly self-explanatory. Please log in and use the "Sample SAFECON" contest and play around with entering scores. One important note on importing scores, the CSV file MUST contain 5 columns as asked for.

I will try and get this section completed in the next couple of weeks.

Any questions, please feel free to call me.

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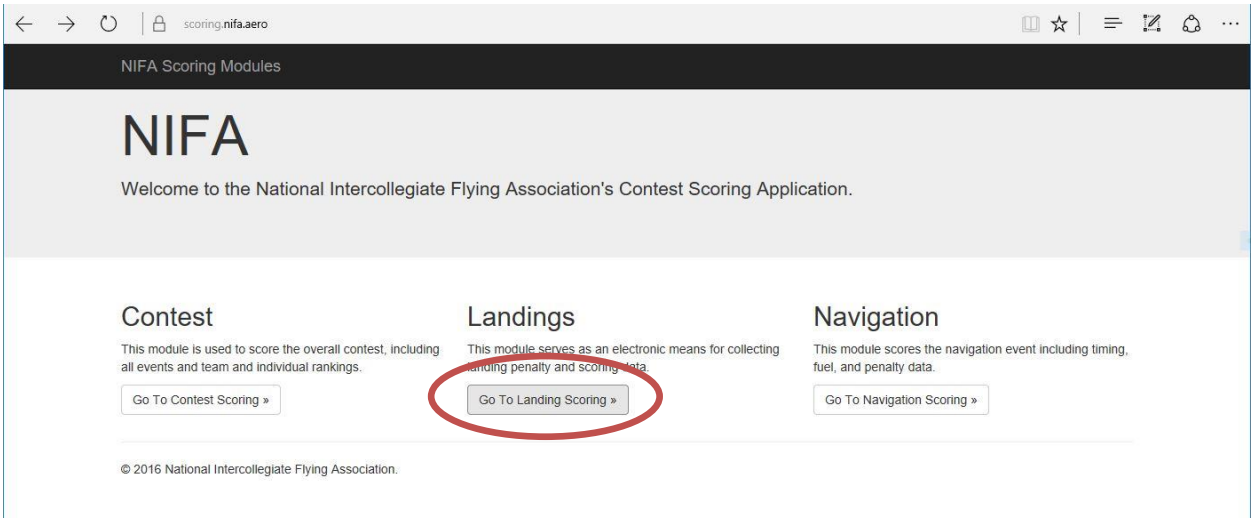
Landing Events Scoring Module

This section of the NIFA Scoring System User's Manual will discuss how to create the Power Off and Short Field Landing Events, how to link them to the Contest Scoring Module, and how to assign users and permissions to the landing events. We will continue to use our "Sample SAFECON" contest for this example.

Creating the Landing Events

To create the Landing Events, access the NIFA Scoring System and select the Landings Scoring Module. Please see the "Access & Login" section of this manual for instructions on accessing the NIFA Scoring System.

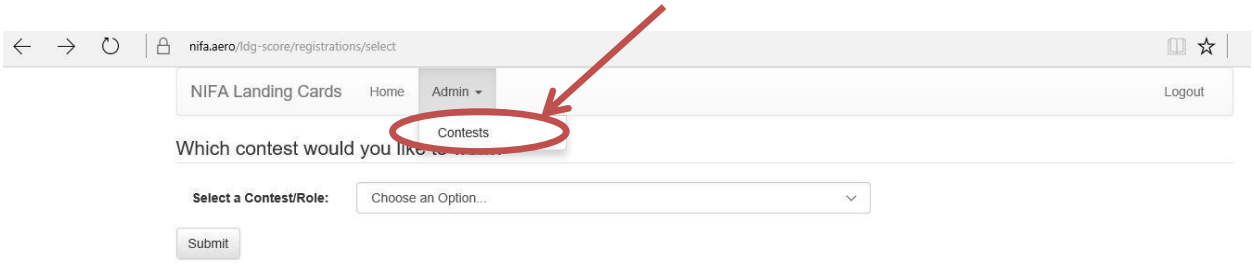


Once you have successfully logged in, you will reach the Landings Scoring Module home screen:

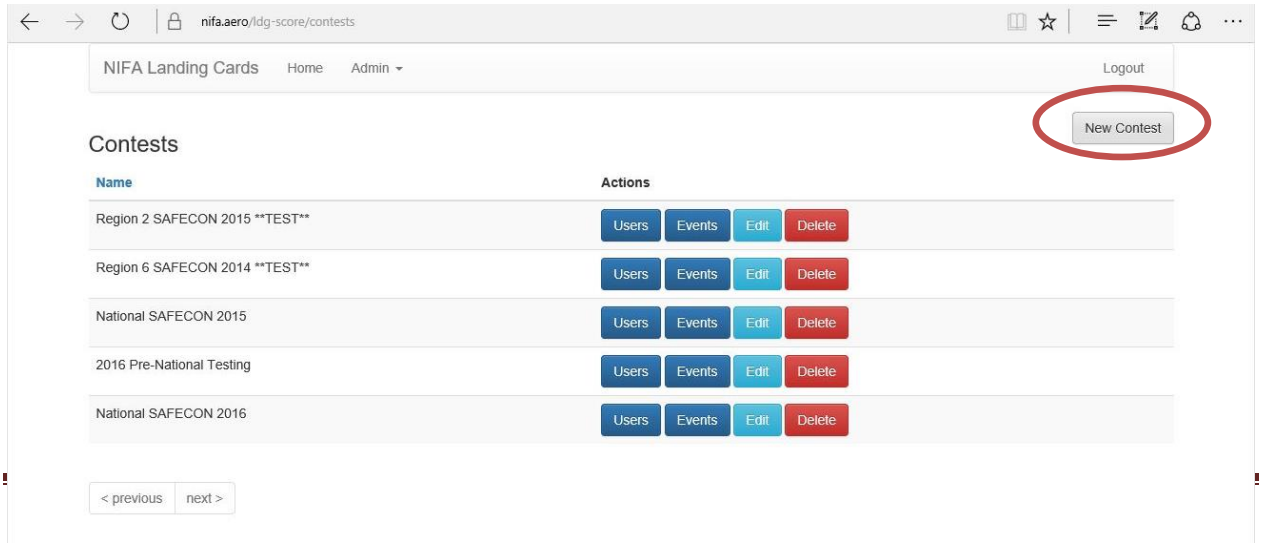
Choose the contest you would like to work on from the drop down menu.

As you click on the “Select a Contest/Role” drop-down, you will not see our “Sample SAFECON” contest displayed. This is because we have not yet created the Landing Events in our Sample SAFECON.

In order to create our Landing Events for our Sample SAFECON, click on “Admin” and then click on “Contests” from the drop-down menu that appears.



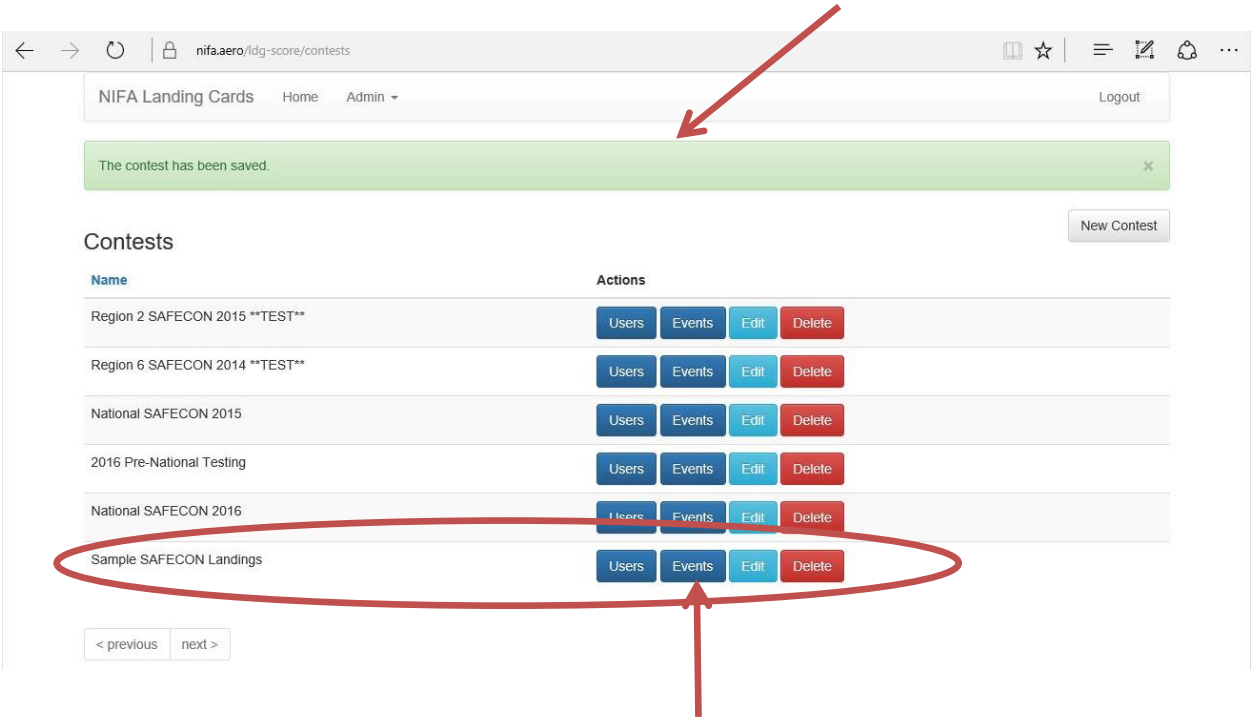
You will now see a screen similar to this one. You may have no contests displayed, or you may see a short list of contests. Your exact view will be determined by how many contests you have been assigned to in the past. Regardless, you will need to click on the “New Contest” button near the upper right corner to create the Landing Events for Sample SAFECON.



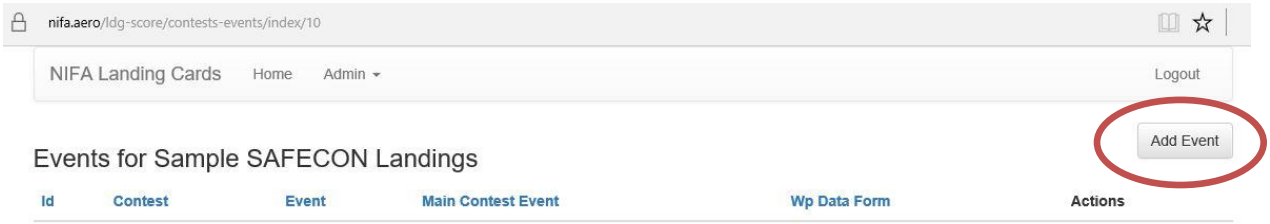
Clicking on “New Contest” will bring up the following screen:

From this screen, you will need to name the Landing Events contest and also link it to the proper Main Scoring Module. For our example, we will name it “Sample SAFECON Landings” and we will link it to the Sample SAFECON Main Scoring Module from the drop-down menu and then click on “Submit.” Suggested naming convention would be to simply title it with the year and scope (Regional or National) of your SAFECON.

Once you have submitted your information, you will be returned to the list of all contests you have been assigned to in the past and you will see a green confirmation bar at the top stating that your contest was saved, and your contest will now appear in the list.

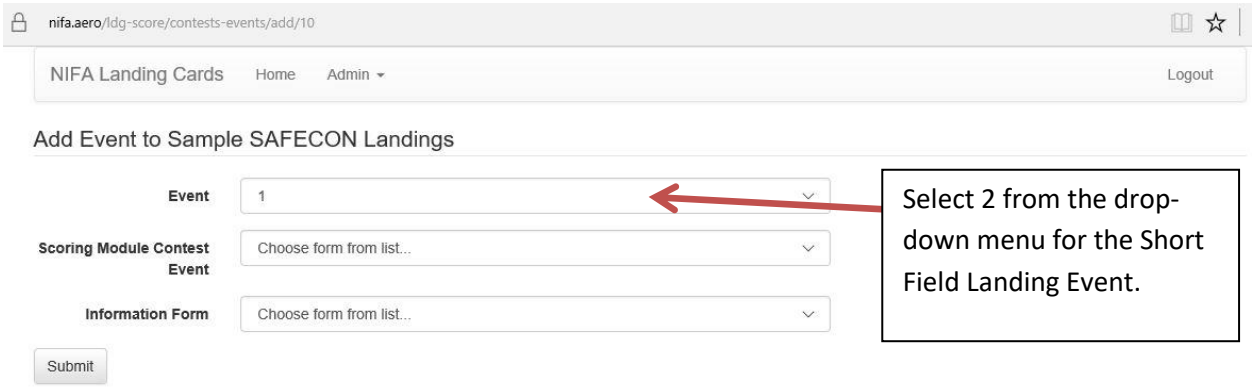


Now that you have created your Landing Events, you will need to define what events are being competed and connect them to data sources for the electronic landing cards. To do this, click on the "Events" button for your Sample SAFECON Landings. This will take you to this screen:

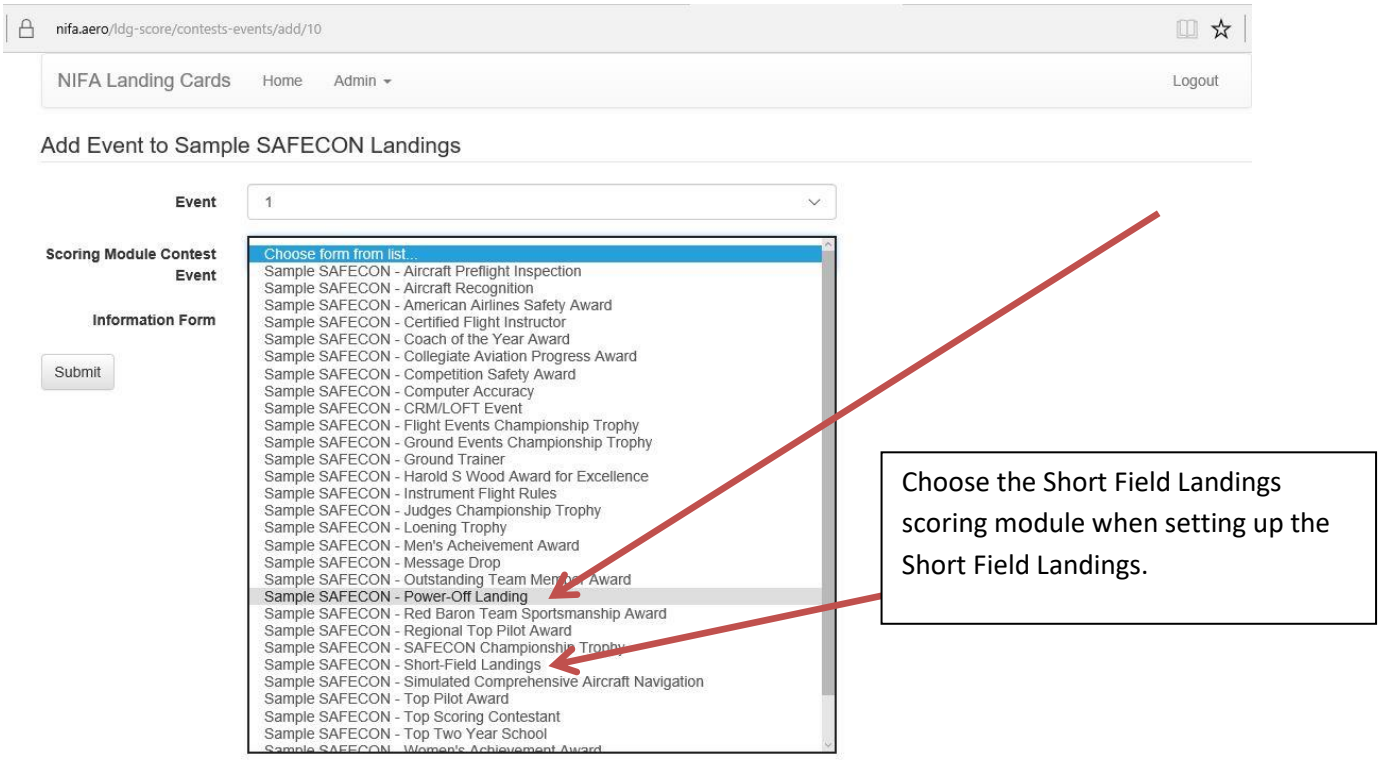


No events are shown for the Sample SAFECON Landings module. To add an event, click on the "Add Event" button near the top right corner of this screen.

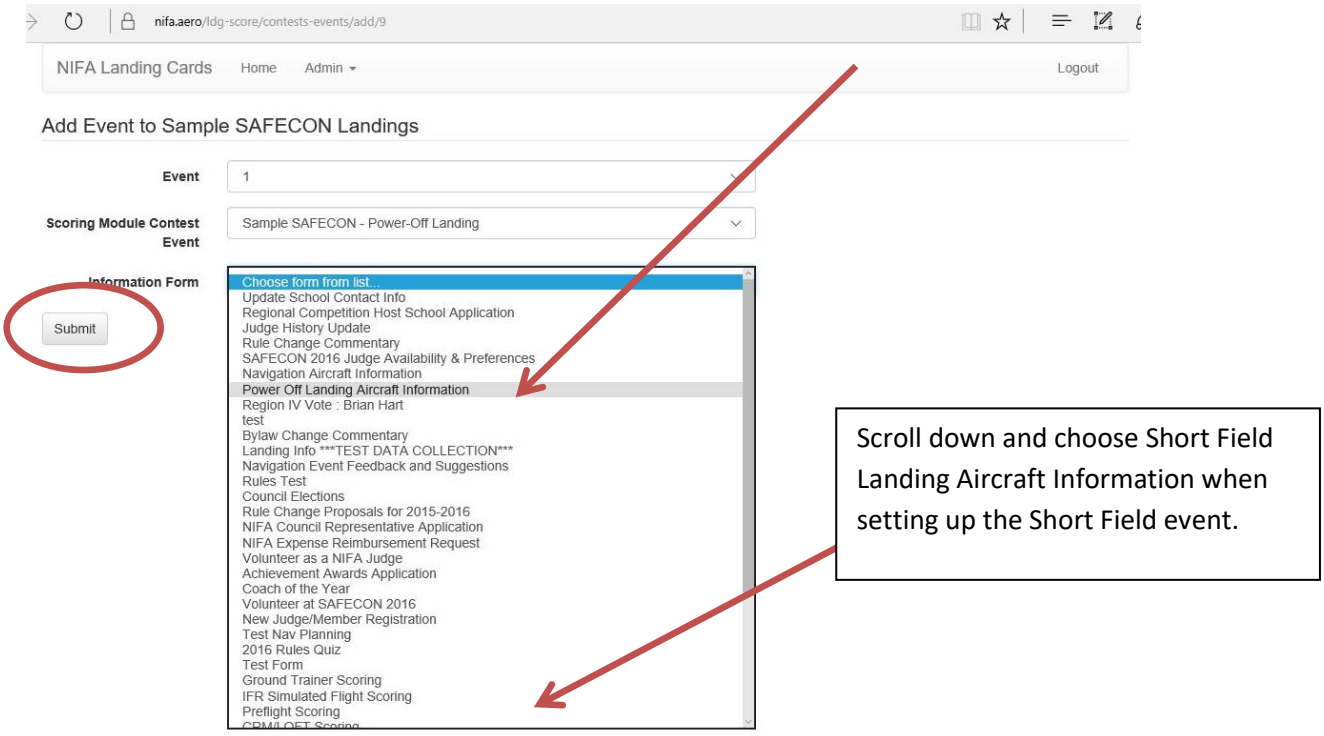
You will now see this screen to begin creating the Power Off and Short Field Landing Events. Should NIFA add more or different landing events in the future, you would create them here as well. For the first drop down menu, you have the choices of Event 1 or 2. Should NIFA add more landing events in the future, you would see more than two choices here. This example will add the Power Off Landing Event. The steps to add the Short Field Landing Event are nearly identical. The small text boxes on the screen shots will point out the differences. For now, we will add the Power Off Landing Event first.



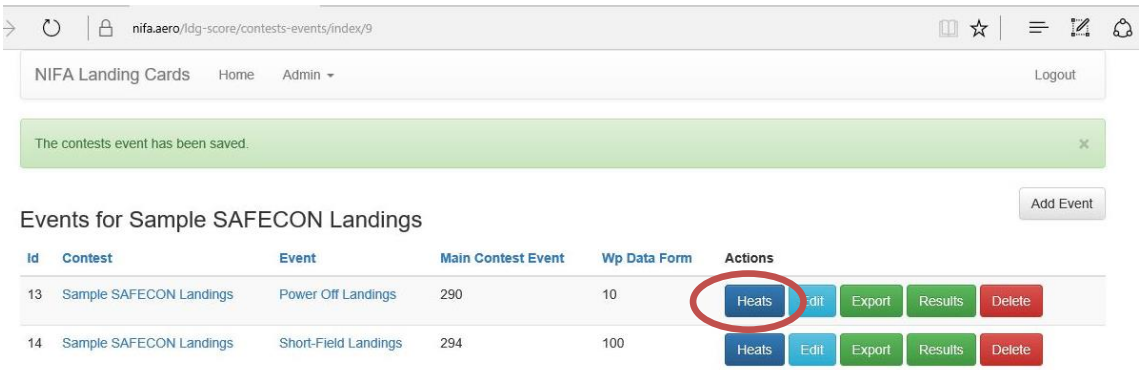
To add the Power Off Landing Event, make sure the Event drop-down menu is selected to "1." Next, on the Scoring Module Contest Event drop-down, scroll down and select the appropriate event from the list. In this case, since we are working on the fictitious "Sample SAFECON" we would choose the "Sample SAFECON – Power-Off Landing" selection.



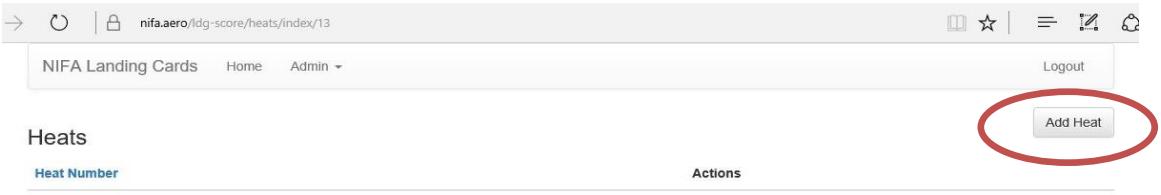
The next step in setting up the Power Off Landing Event is to tie the scoring system to the correct information form so that information about the type, color, and tail number of aircraft in the landing events can be automatically propagated to the electronic landing cards on the day of the Power Off Landing Event. To do this, under the Information Form drop-down menu, select the proper choice for the Power Off Landing Event. You will see many different choices listed here, these are all the various data collection forms that NIFA uses. Simply select the "Power Off Landing Aircraft Information" option from the menu. Once you have selected the proper information form, click on the "Submit" buttion.



After you have set up both events, you will see the following confirmation screen:

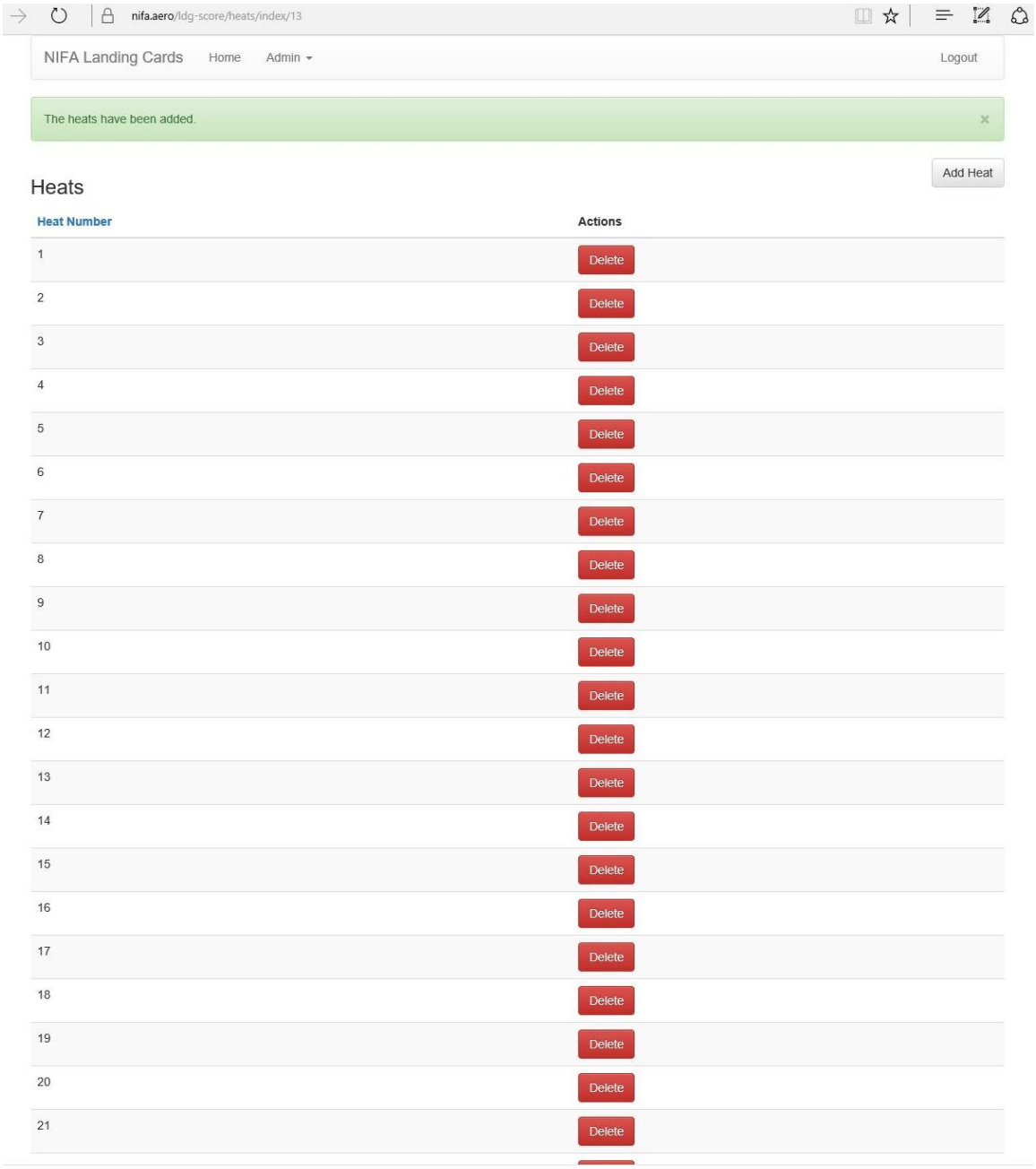


It is not critical that you know what Main Contest Event or Wp Data Form number is correct, these numbers are simply displayed for reference and may come in handy if troubleshooting needs to be done. From here you can also Edit the event, Export the results, view Detailed Results, or delete the event in its entirety. The final step in setting up the landing events is defining how many heats of landings the electronic cards should be able to create. A suggestion is to set the maximum number of heats to 5 more than your heat sheet says you will need. This will give you flexibility in the event of mechanical or other problems where students may need to fly later or re-fly their landing heats. To set up the maximum number of heats, simply click on the "Heats" button and enter the maximum number of anticipated heats for that landing event. Initially you will see a blank heats screen. Click on "Add Heat" near the top right corner.



In this example, we are going to add 25 heats. Type in the number of heats you want and then click on "Submit."

You will see the following confirmation screen.

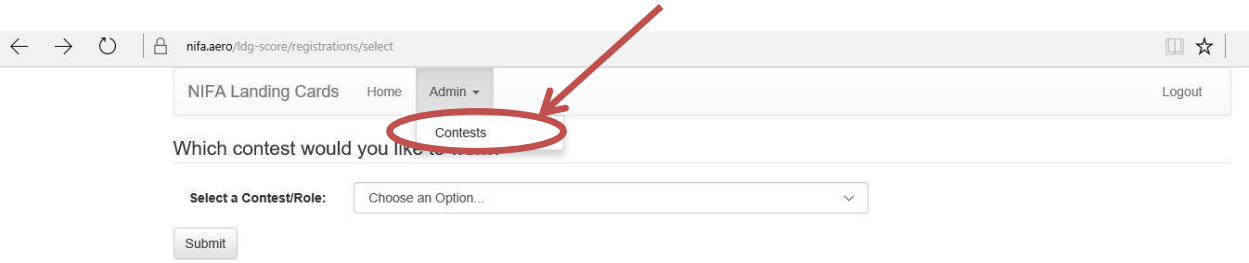


You will need to do this for both the Power Off and the Short Field Landing Events. To return to the screen to enter heats for the second landing event, click on "Admin" at the top, then "Contests." When the contest list loads, select the "Events" button next to your contest and you will be taken to the screen listing the Events for your SAFECON Landings. Click on the "Heats" button for the second landing event and enter the maximum number of heats and submit. You have now successfully created your landing events.

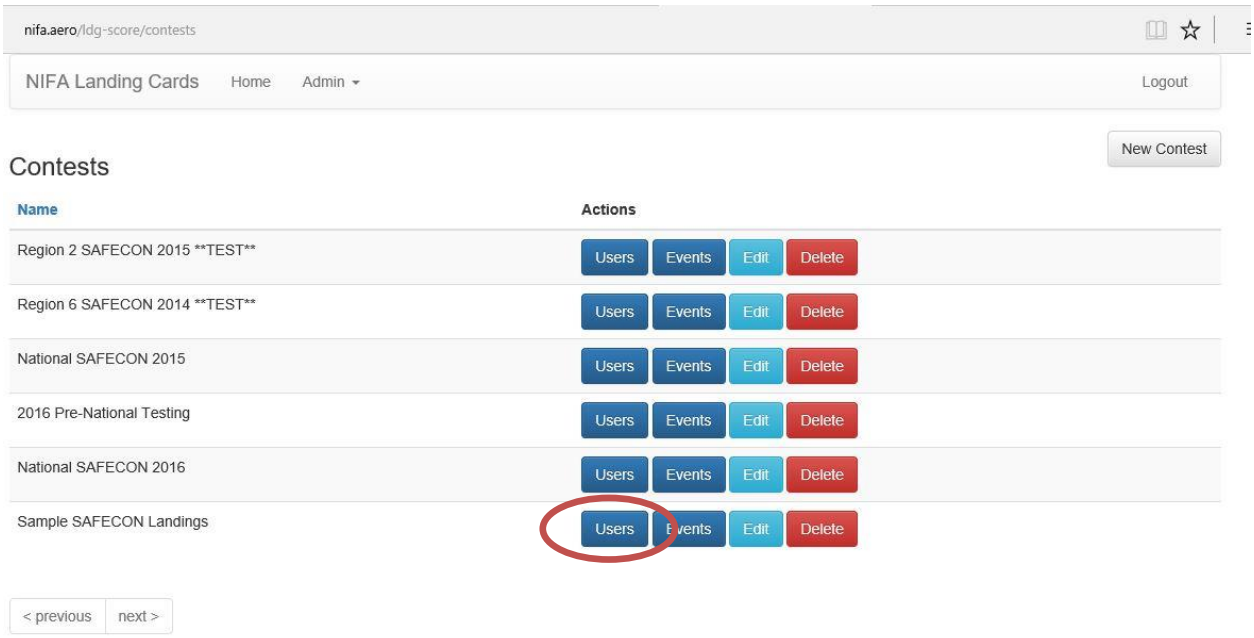
Assigning Users to the Landing Events

This section will show you how to add Users, and assign authorized cards to those users, to the landing events. Since you are setting up the scoring system, Users are your Judges for the landing events. Users can have permission to view just one card or can be assigned multiple cards if needed. This section will show you how to do both.

To add a User to the Landing Events, log in to the Landing Events Scoring Module. Once logged in and presented with the screen asking to choose your contest/role, click on the "Admin" button at the top and then click on "Contests" from the drop-down menu that appears.

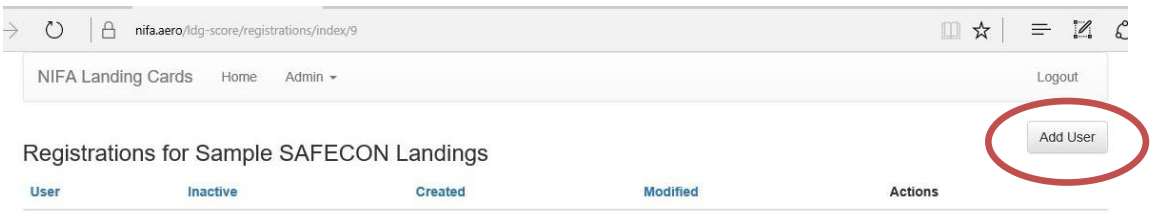


You will now be taken to this screen:

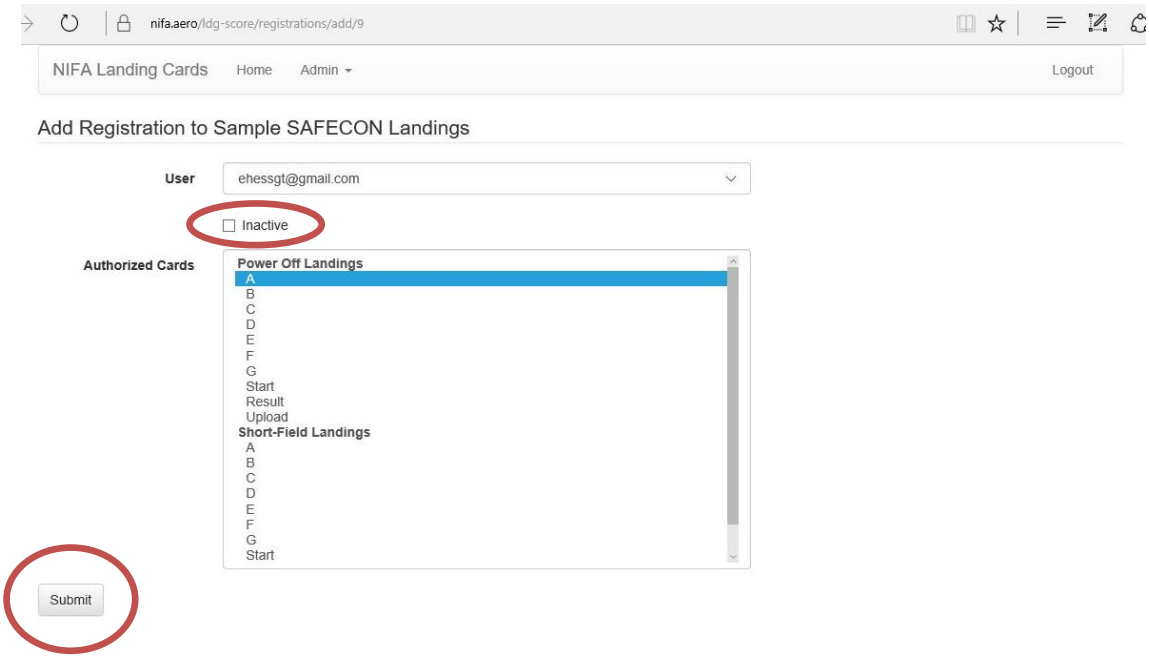


Click on the "Users" button next to your contest. You will now be at the screen where you can assign Users and permissions to those Users for the landing events at your contest.

Here is the screen where you can add Users for the landing events. Click on “Add User” near the upper right corner to add a user.

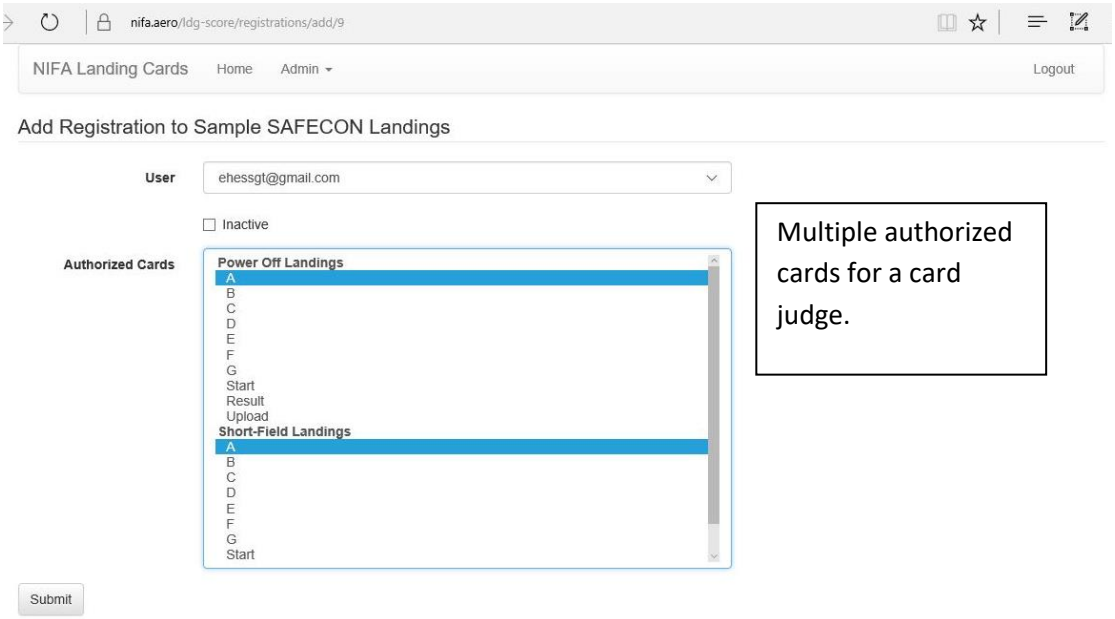


When you click on “Add User” you will see the page to add a User and assign a role, or roles, to that User. You must select the User from the drop down list at the top. You will need to know the email address that person has used to set up their account with nifa.aero and the NIFA Scoring System. You can then select what cards the User is authorized to access. It is highly recommended to only allow, for example, the F Card Judge to have access to the F Card. This will help maintain security of the scores and prevent any accidental changing of scores that were not the responsibility of that Judge. You can also add a User and designate them as “Inactive” simply by checking the box at the top. This can be useful if you have a judge you want to use on a card, but they have not yet firmed up their availability. You can mark them as “Inactive” and then simply come in and change their authorizations later on. Once you have set the authorized cards for that User, click on the “Submit” button in the lower left corner.

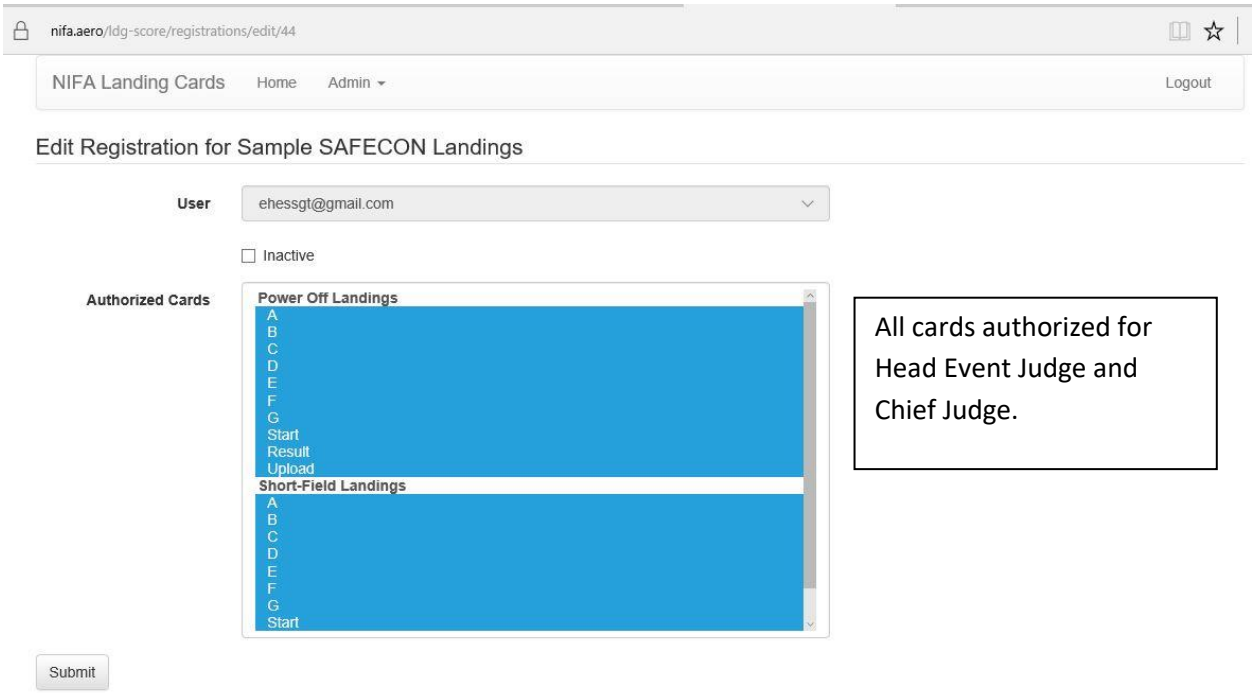


You can also assign multiple authorized cards to a User by holding down the <CTRL> key while clicking on the cards they are authorized for. This is most useful when assigning card judges since the F Card Judge will typically be the F Card Judge for both events, therefore requiring 2 authorized cards. You can

also authorize all the cards for a particular judge by clicking on the top choice, the A Card for Power Off Landings, and then holding down the <SHIFT> key while clicking on the last choice, the Upload Card for Short-Field Landings. This is useful for the Chief Judge and for the lead Event Judge as well. They typically have a need for access to all cards.

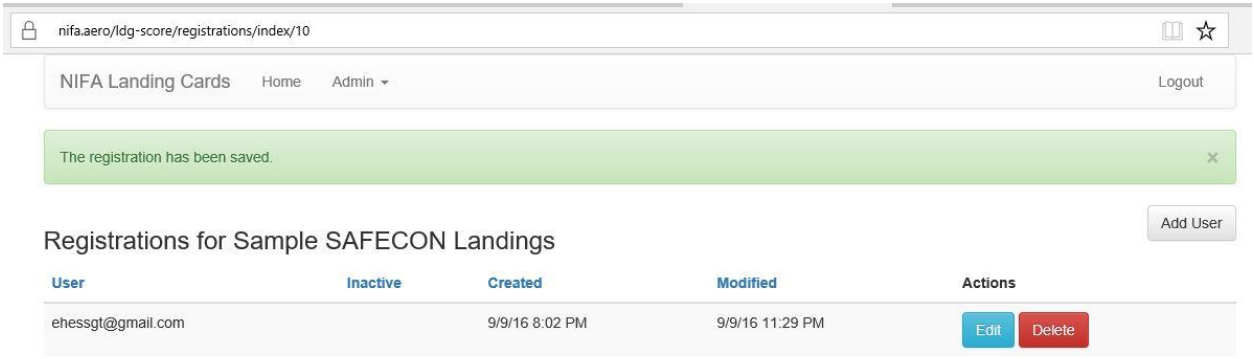


Multiple authorized cards for a card judge.



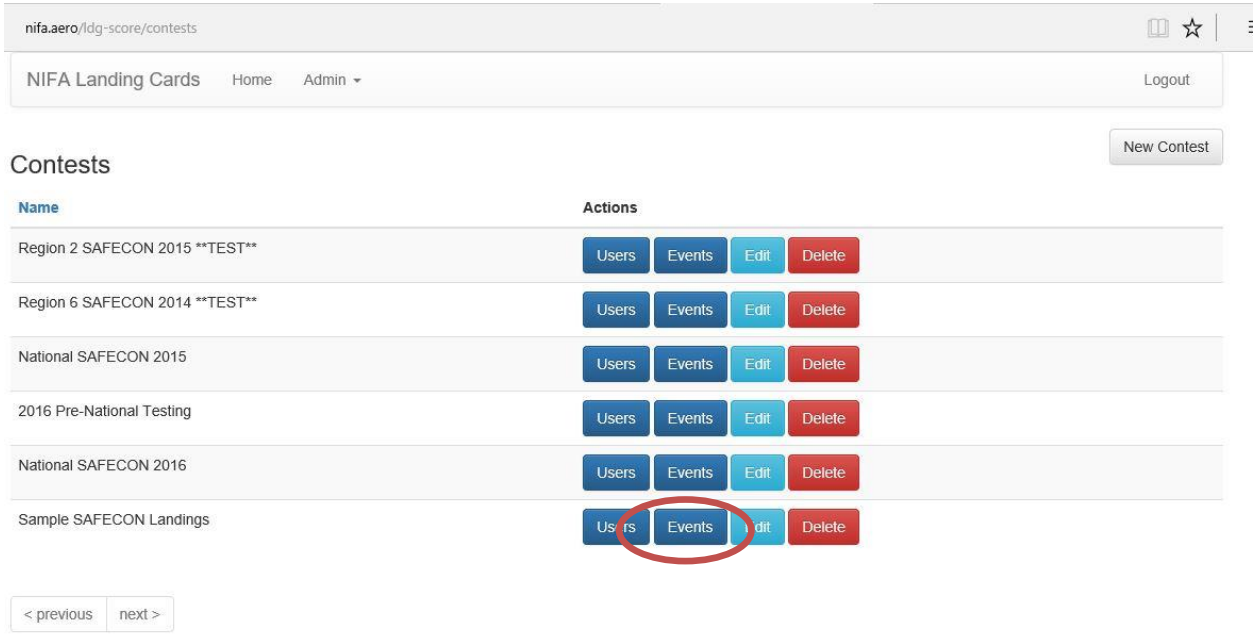
All cards authorized for Head Event Judge and Chief Judge.

After you submit the authorized cards for a User, you will be returned to the list of Users for the Landing Events with the option to add more, delete, or edit a user's role.



Exporting Results to the Main Scoring Module

Once the landing competition is over, the results from the competition need to be sent to the Main Scoring Module. To do this, login to the Landing Events Scoring Module, click on "Admin" at the top and then click on "Contests" from the drop-down menu. You will once again see the list of contests you have been authorized for.



Click on "Events" for the appropriate contest.

You will now be at this screen:

Click on the “Export” button and a comma separated values document will download. Save this file to your computer. You will then either upload that file into the Main Scoring Module or email that file to the Chief Judge or Scorekeeper for uploading into the Main Scoring Module. The “Results” button on this screen will simply create an html file with detailed results of all the landings.

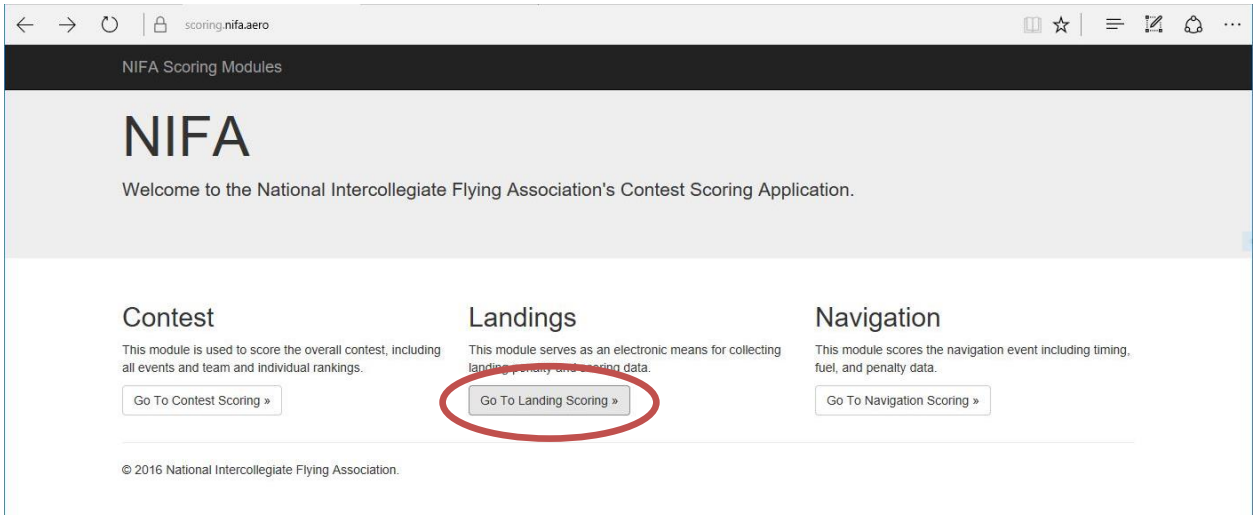
NIFA Electronic Landing Card System

This section will discuss scoring the events with the use of the Electronic Landing Cards and cover contingencies as well. The way the Electronic Landing Card System is designed is fairly simple. The heats are created when the Landing Events are set up in the initial contest. The heats are then "Started" with the Start Card Judge. The Start Card Judge will fill out the Electronic Start Card in the staging area by obtaining the contestant's ID numbers and unique aircraft information (type, color, school, N-number) and inputting this information into the Electronic Start Card. Once this information is loaded into the Start Card, it is then pushed out to the rest of the landing cards. For this reason, the A, B, C, D, E, F, G, Result, and Upload cards will not have any data until the Start Card has input that information. Generally speaking, you will have information for three to five heats ahead. The Electronic Landing Cards are designed to be used on any device that has active internet connectivity. For convenience, a tablet device with a minimum screen size of approx. 7.9" (iPad Mini) is recommended. The screen images in this section have been taken from a Windows based desktop PC. The actual presentation will vary on other devices, but in general is very similar to the presentations you will see in this manual.

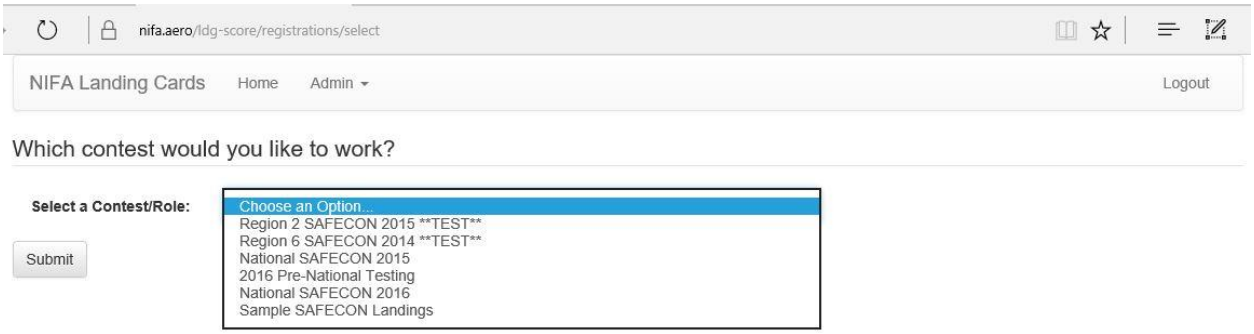
Logging In to the Electronic Landing Card System and Navigating the Electronic Cards

Logging in to the Electronic Landing Card System

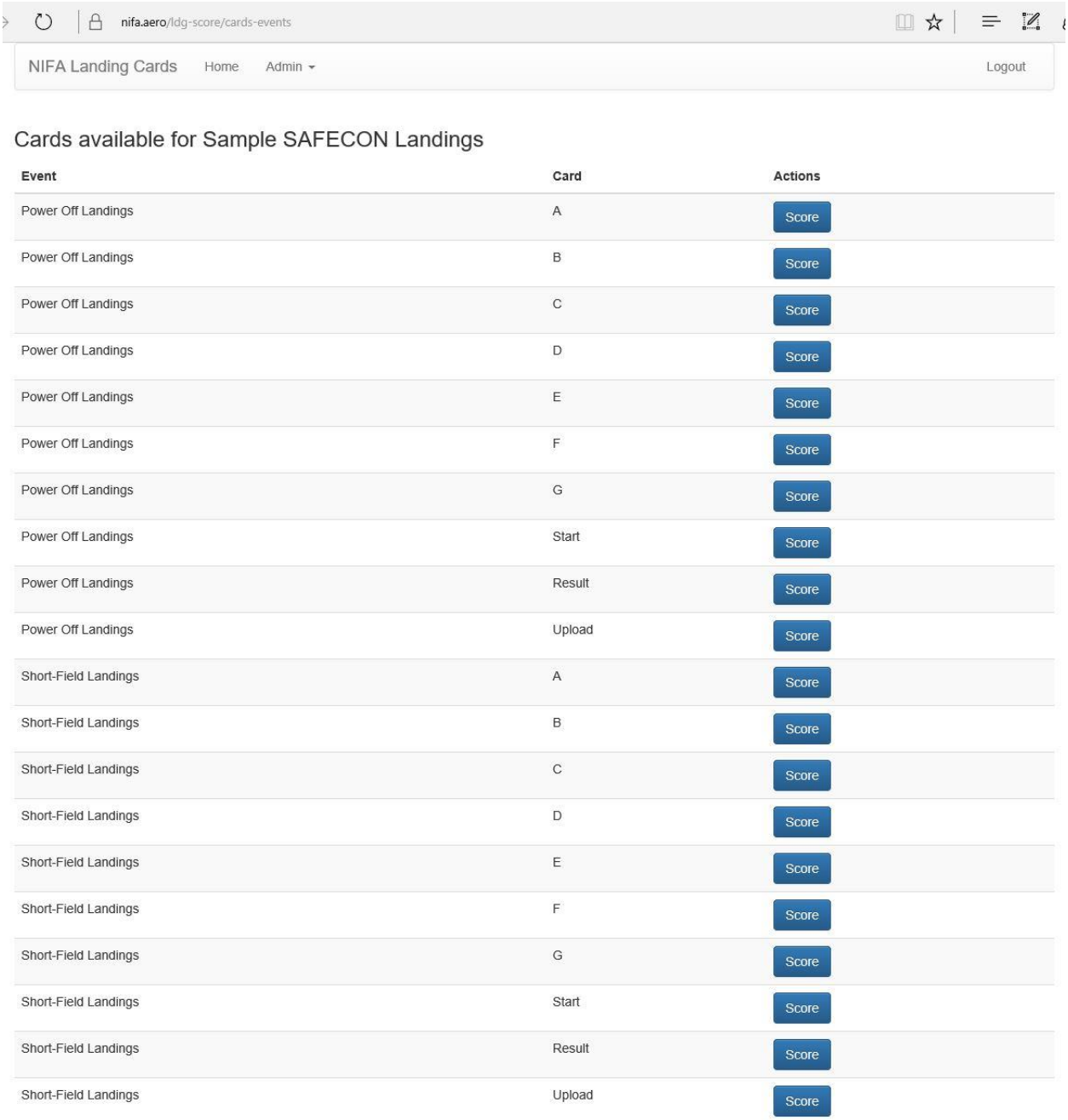
To login and access the Electronic Landing Cards, please see the section of this manual "Access & Login" and then select the Landing Scoring Module.



Once logged in, the judge will need to select the appropriate contest to work from the drop-down list and then click “Submit.” The list of contests will vary for each judge, as it will display a complete list of contests that have been assigned to that judge. In this example, we will continue to use our “Sample SAFECON Landings” contest.



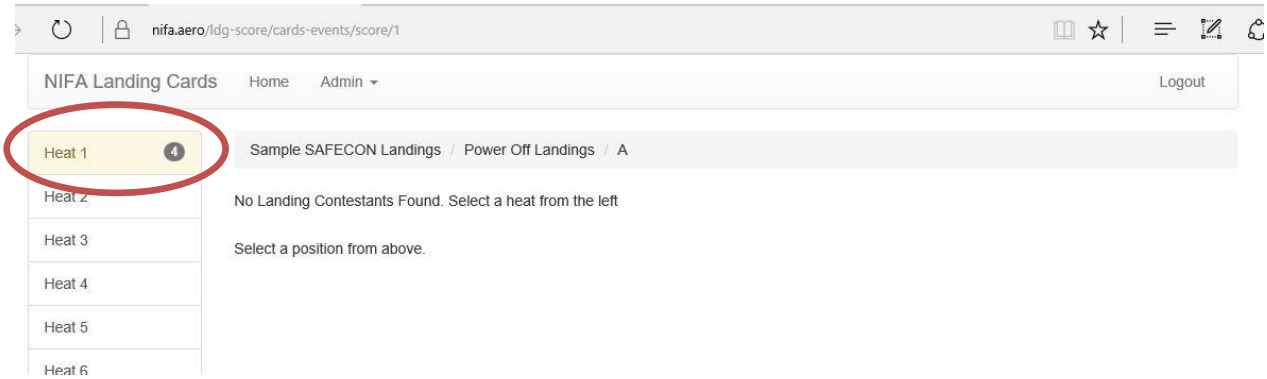
Once the judge has selected and submitted the proper contest, he/she will be taken to a page showing all cards they are authorized for during that contest. The list will be different for every judge. Shown here is the listing of all cards for both events. This would be appropriate for the Chief Judge of the SAFECON for example.



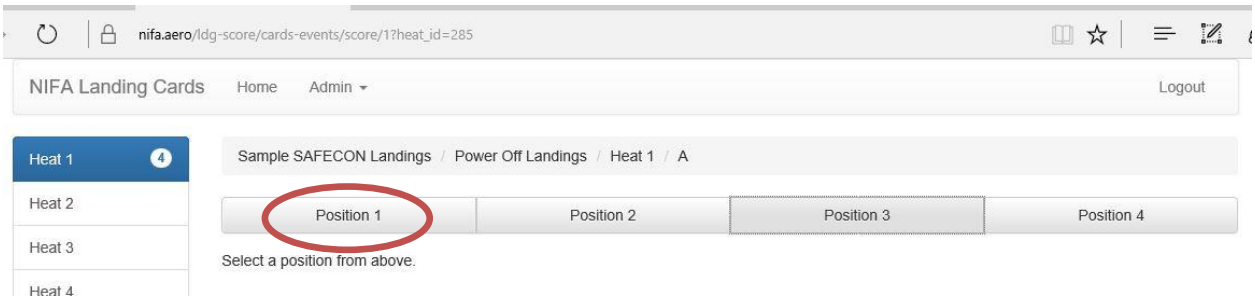
From this screen, the judge would click on the "Score" button next to the appropriate card for the proper event to begin entering scores.

Navigating the Electronic Landing Cards

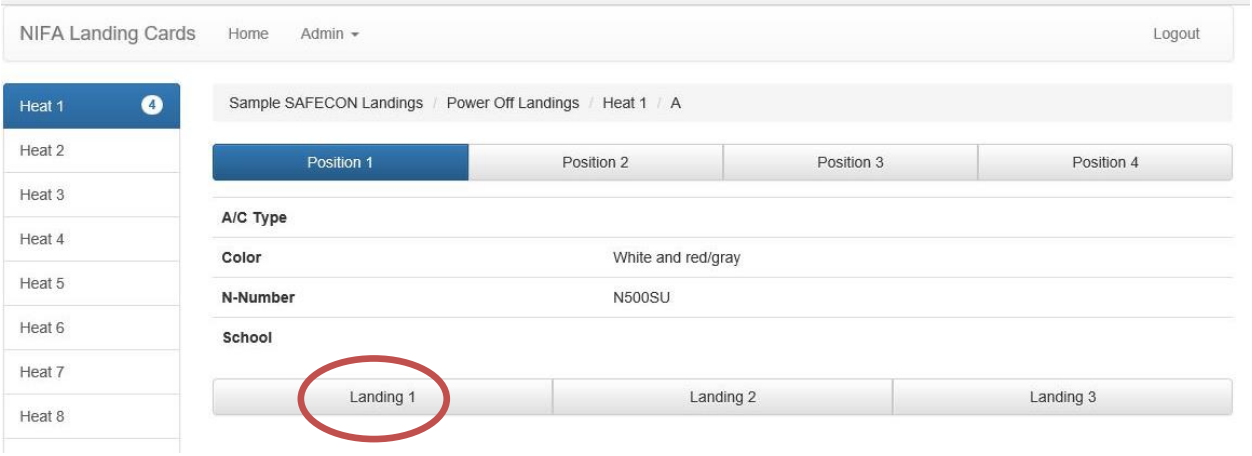
This section will show how to navigate the A, B, C, D, E, F, and G Cards. The Start, Result, and Upload Cards function slightly differently and will be described in their own sections of this manual. For the purposes of this section, we will show how to navigate the cards using the Power Off Landing Event A Card. When the judge clicks on the "Score" button next to the Power Off Landings A Card, they will initially see this screen:



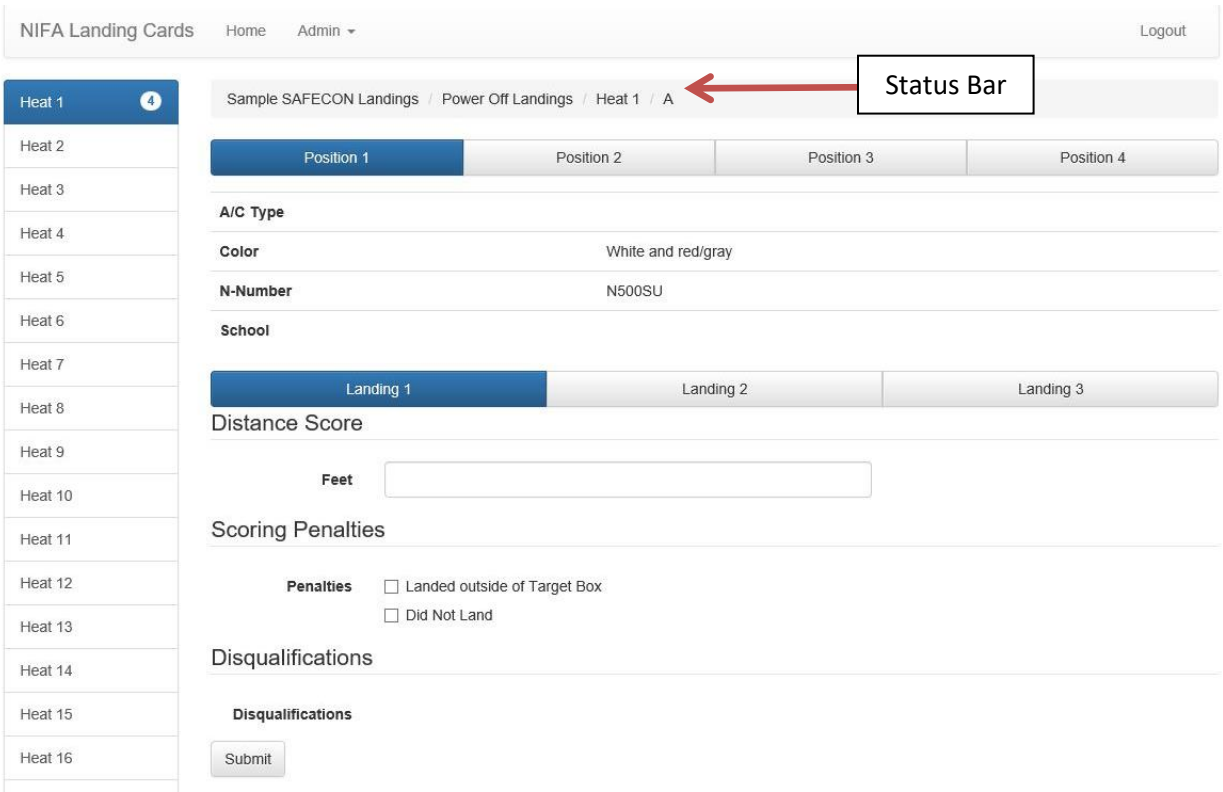
The highlighted Heat 1 on the left with the ball number 4 next to it indicates that the Start Card has loaded information for Heat 1, and there are 4 aircraft in that heat. The other heats are still blank indicating that the Start Card has not yet input any information for those heats. To view and enter scores in the Electronic A Card for Heat 1, simply click on Heat 1. You will then see this screen, where we will select Position 1.



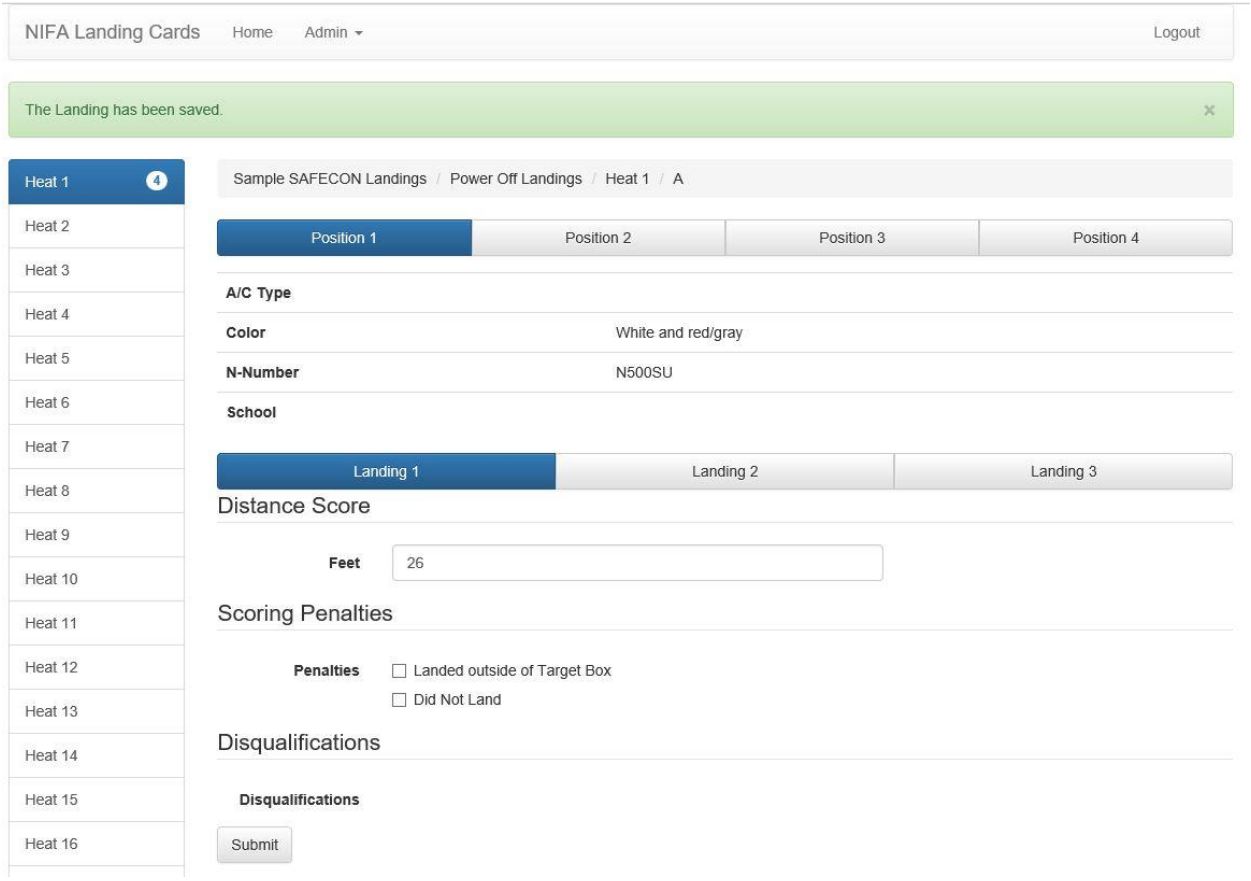
After selecting Position 1, we will see this screen, and we will then select Landing 1.



Now we will see the data entry screen for Heat 1, Position 1, Landing 1. We can verify this very easily by looking at the blue highlighted fields and by referencing the grey status bar that is always present at the top of each card. The grey status bar will always show the judge what contest, event, heat, and card they are currently working on. The position and landing can be verified by looking at which fields are highlighted in blue. The heat can be further verified by looking at the left side of the screen and see which heat is highlighted in blue.



Once the aircraft has landed and a score or penalty has been assessed, the judge must click on the "Submit" button at the bottom left to record the score in the system. The confirmation screen will then be displayed. In this example, we have assessed a distance score of 26 for this contestant.



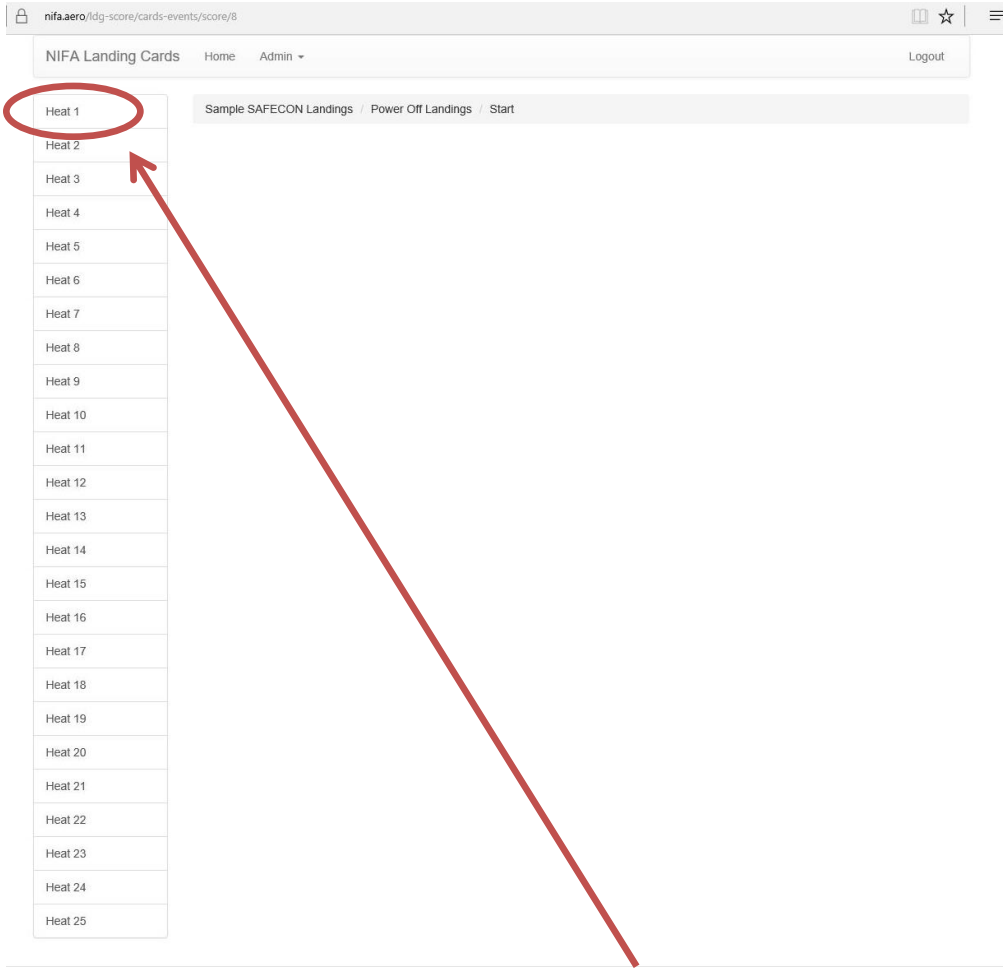
To continue entering scores as the event progresses, the judge would now click on Position 2 and then click on Landing 1, record and submit the score, and then move on to Position 3, Landing 1. This process would continue until the heat is complete. At that point, simply select the next heat, and begin with Position 1, Landing 1 continuing to record scores. Keep in mind the "Submit" button must be clicked after every landing in order to record the score into the Electronic Landing Card System. The navigation around the B, C, D, E, F, and G Cards is identical to the navigation around the A Card.

Start Card

The Start Card is where the heats are started. On this card the Judge will meet each contestant and get their ID number. The judge will then input the ID number into the Electronic Start Card. The Electronic Start Card will query the NIFA Main Scoring Module and return the contestant's name and school to the judge for verification. As the judge assigns the heat and positon for the contestant, the Electronic Start Card will query the proper Aircraft Information Form for the unique aircraft information. This form

should have been filled out prior to the start of the competition by the contestant or his/her school. If any errors are found, an error message will be displayed.

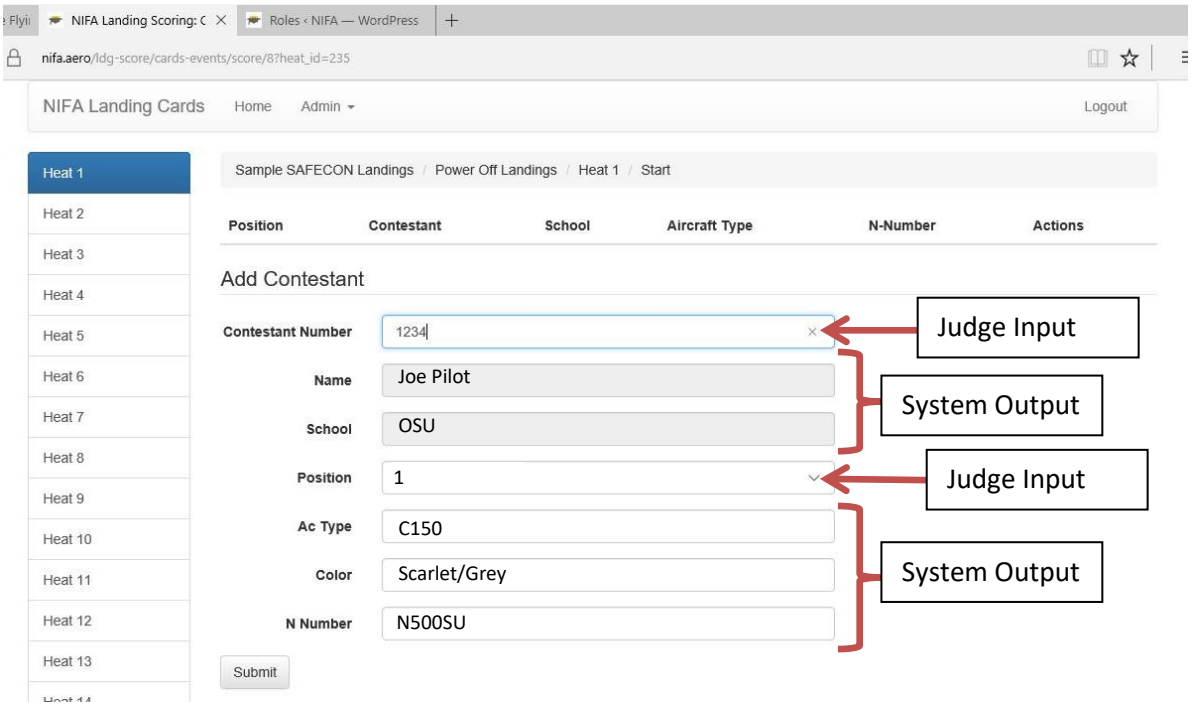
To begin, the Start Card Judge must go to the Landing Events Scoring Module and log in and select the correct contest to work. Please reference the earlier section "Logging in to the Electronic Landing Card System" if there are questions on how to login. Once logged in, the Start Card Judge simply needs to click on the "Score" button next to the Start Card for the appropriate event. For our example, we will use the Power Off Event Start Card.



This is the initial screen you will see after clicking on the "Score" button:

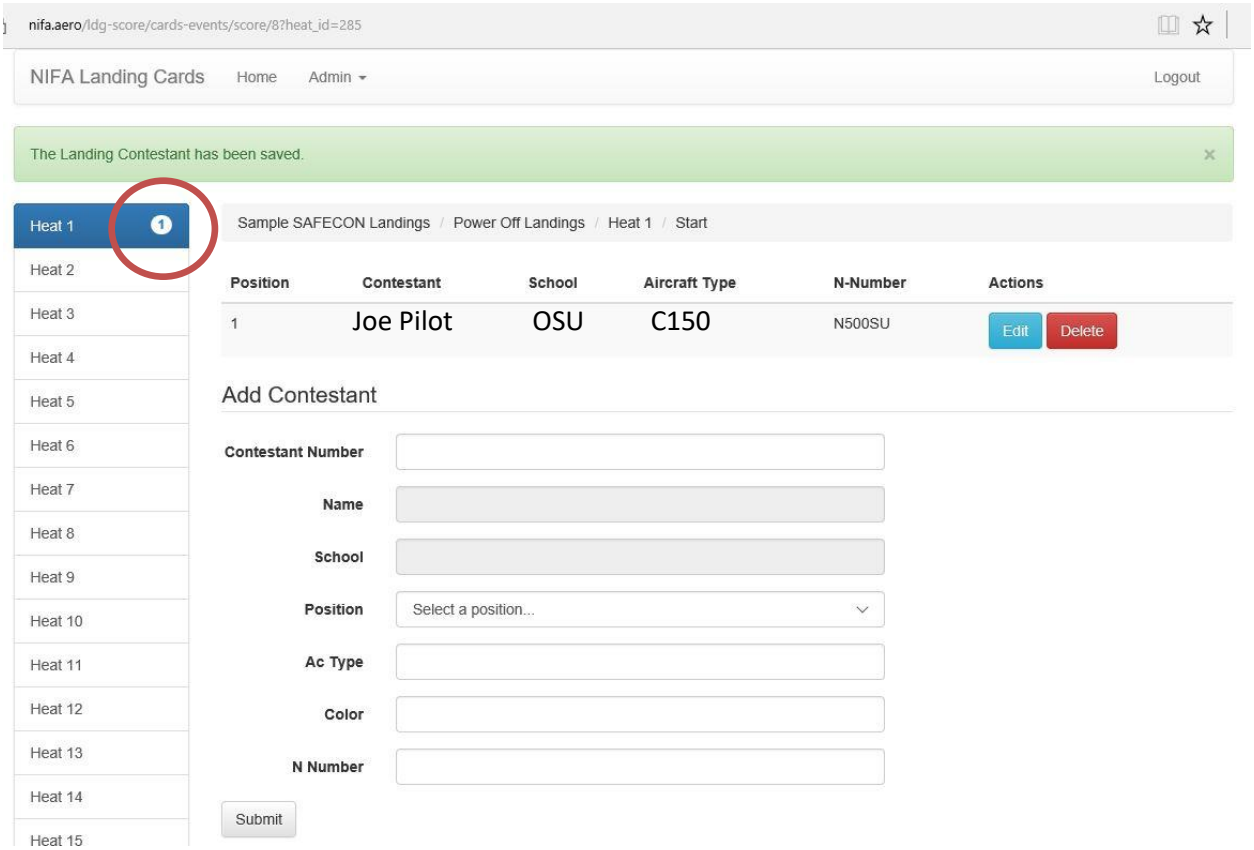
To begin adding information, click on a heat on the left. For this example, we will click on Heat 1.

You will now have this screen:



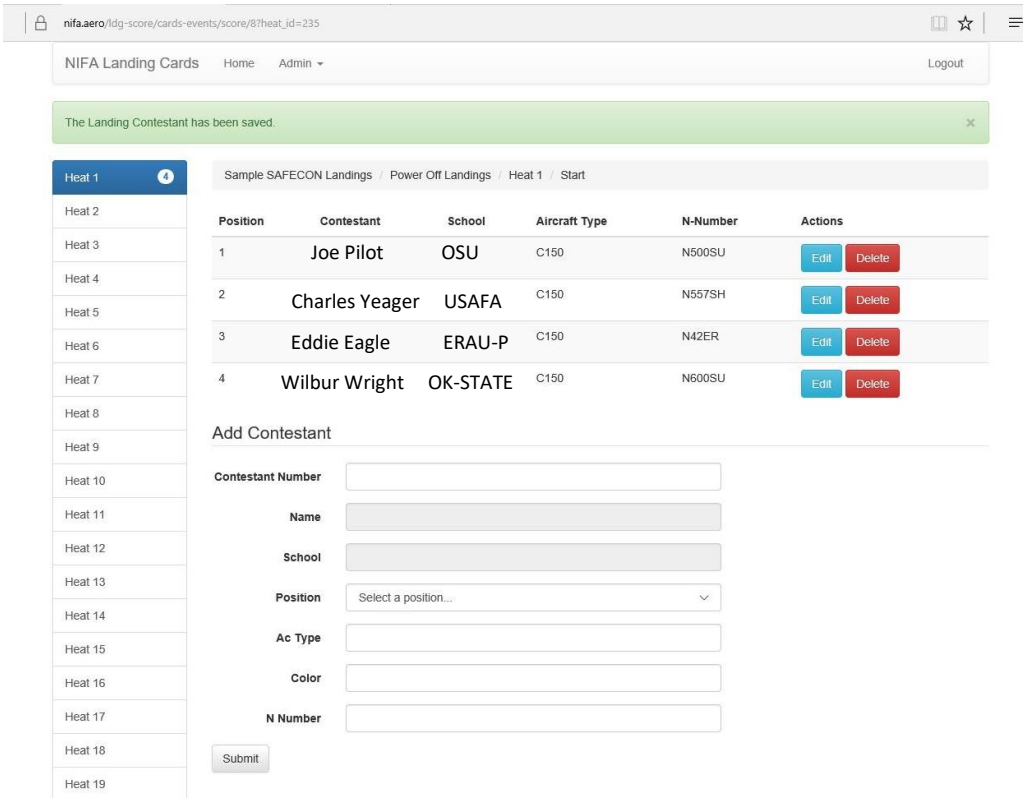
You will enter the contestant's ID number in the top field. The result from the query will populate the contestants name and school into the two grey fields. Next, select the position in the heat the contestant will be flying in from the drop-down selection. The result from the query will populate the fields below for you. Verify all this information is correct and then click the "Submit" button in the lower left corner.

You will now see this screen.



You can edit or delete that contestant if needed. You will need to repeat this process for all 4 positions in each heat. Also notice the small ball number next to Heat 1 in the top left. This ball number shows you how many contestants have been successfully submitted to the Electronic Landing Card System for that heat by the Start Card. When you see a ball number here, that is your confirmation that the information has been pushed out to the other cards.

Once the entire heat is built, you should have a screen similar to this:

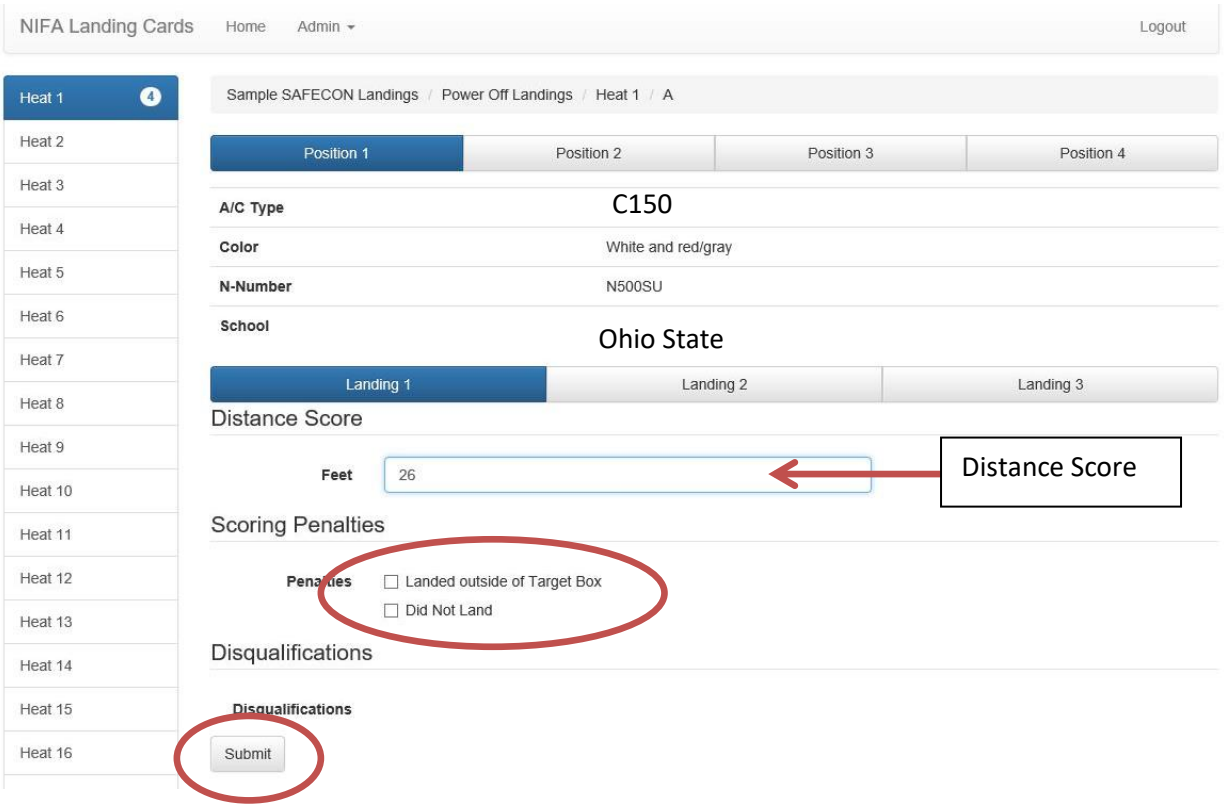


At this point, you can edit or delete any contestants you need to. If you are satisfied with Heat 1, simply click on Heat 2 on the left side and continue to repeat this process until the event is over.

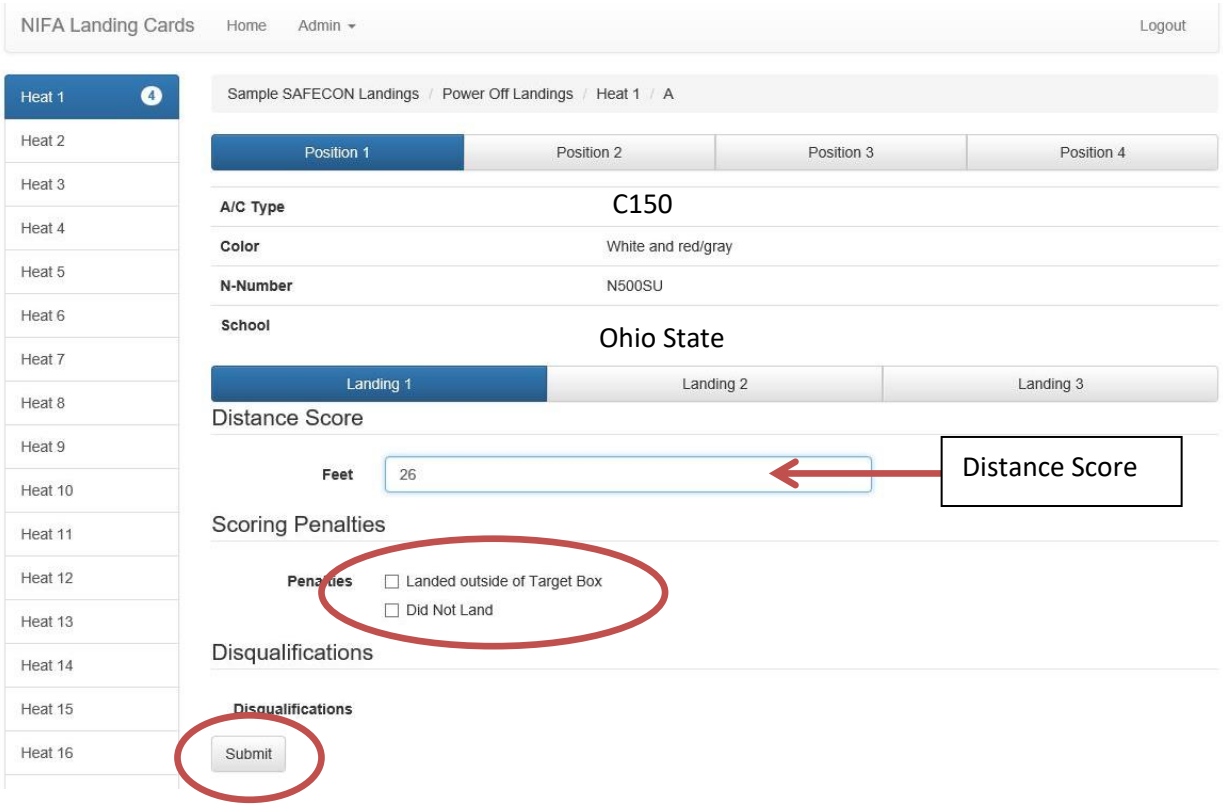
A Card

The A Card is used for recording the distance score of the contestant when they land. To access the Electronic A Card, the authorized judge will need to login to the NIFA Landing Events Scoring Module and select the appropriate contest. Please reference the earlier section "Logging in to the Electronic Landing Card System" if there are questions on how to login. Once the list of authorized cards appears, the judge will need to click the "Score" button next to the A Card for the proper event. In this example, we will continue by demonstrating with the Power Off Landing Event. This example will show the Power Off A Card for Heat 1, Position 1, Landing 1. For questions on how to navigate around the event in the Electronic Landing Card System, please review the earlier section on "Navigating the Electronic Landing Cards."

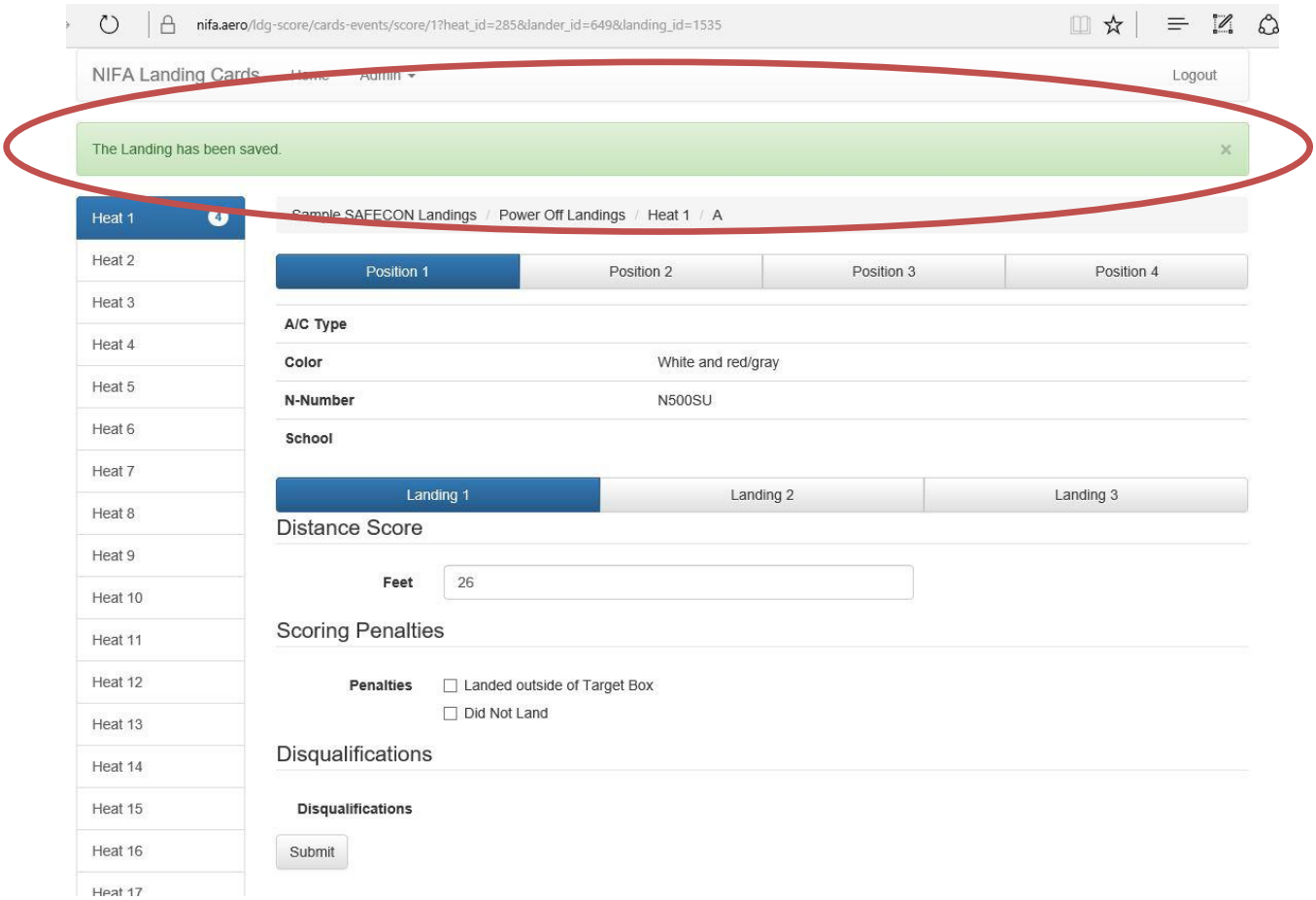
The data entry portion of the card is now shown for Heat 1, Position 1, Landing 1 for the A Card judge to enter a distance or check the appropriate box for landing outside the target box or going around (did not land). There is no penalty assessed by the Electronic Landing Card System for the "Did Not Land" checkbox. The penalty for a go-around is assessed on the G Card. The A Card Judge will need to check this box anytime a contestant goes around. This is for two reasons: First, it eliminates confusion about did the judge simply forget to record the distance and second, it feeds into the overall rankings if a student goes around on all the landings, but does not disqualify. It will then properly rank them behind all the contestants that did land and ahead of all the contestants that disqualified.



Looking at the data entry portion of the Electronic A Card, you will notice the contestant's name and ID number is not shown. This is on purpose, as that information is not needed to help identify the aircraft. The aircraft type and it's characteristics will be shown to help identify the plane. Also note the grey status bar is shown just above the data entry fields so the judge can easily reference what event they are inputting information for. In this example, we will assess a distance score of 26 feet. Once the distance and any penalties are correct, the judge must click on the "Submit" button in the lower left corner to save this information into the Electronic Landing Card System.



Once the landing has been saved into the Electronic Landing Card System, you will see this screen with the green confirmation bar at the top.



After the landing is saved, the judge will continue to progress through the event as described in the "Navigating the Electronic Landing Cards" section of this document. Remember, the "Submit" button must be clicked after each landing or the score will not be recorded in the Electronic Landing Card System!

B, C, D, E, F, and G Cards

These cards have been combined into one section because their functionality is identical, even though they contain different penalties. The respective judges will select, navigate, and enter penalties on these cards in the exact same manner. For this example, we will use the E card.

To access the cards, the judge must login and choose the proper card from the list. Please reference the earlier sections "Logging in to the Electronic Landing Card System" and "Navigating the Electronic Landing Cards." if there are questions on how to login or navigate the cards. Here we will show the E Card for the Power Off Landing Event. In this example, we have assessed two penalties, "Addition of Power After Reduction" and a "Constant Turn to Final." To assess the penalties, simply click on the penalty. If you later decide it was not valid, simply click on the penalty again to deselect it. Be sure to click the "Submit" button after each landing to save the penalties in the scoring system.

Once you have submitted the penalties, you will see this confirmation screen with the green confirmation across the top.

After the landing is saved, the judge will continue to progress through the event as described in the "Navigating the Electronic Landing Cards" section of this document. Remember, the "Submit" button must be clicked after each landing or the score will not be recorded in the Electronic Landing Card System!

Result Card

The result card should generally be restricted to just the Head Event Judge and the Chief/Assoc. Chief Judges of the SAFECON. This card displays a list of the all the landings that have been completed and submitted to the Electronic Landing Card System. Access is as described in the "Logging in to the Electronic Landing Card System" section of this manual. Navigation is a little different.

In this case, only one landing has been scored, but four contestants have been entered by the Start Card Judge. The only landing score submitted to the system is for contestant number 1234. They have received a score of 251. For a detailed breakdown of their score, simply click on the score.

Here you can see that on Landing #1 they received a distance score from the A Card of 26, and penalties on the E Card of "Addition of Power After Reduction" and "Constant Turn to Final." On the G Card they also received an "Addition of Power" penalty, but the system automatically checked for duplications and eliminated the second penalty, which is why that penalty is shown with a line stricken through it. The system will automatically account for any penalties that can be assessed on multiple cards, and if

appropriate per NIFA rules, will allow that penalty to only be assessed once. If the student had disqualified, as shown below, all of the penalties the student had accrued will be shown in the detailed result as well as the DQ.

Upload Card

This card is reserved for future use.

Contingencies

This section will look at how to deal with changes in pilots, aircraft, sequence, or malfunctions of the Electronic Landing Card Scoring System.

Pilot Changes

One of the best features of the Electronic Landing Card System is that pilot changes are no longer an issue. Since the pilot provides their contestant ID to the Start Card Judge just prior to the hot box, there should never be a situation where the pilot in a plane changes after the Start Card is created for that pilot. The most likely outcome of a pilot change at this point would be a mechanical or other malfunction, and that will be addressed in other contingencies. For this reason, the Start Card Judge should try to work no more than three to four heats ahead of the active heat.

Aircraft Changes

Occasionally a school may need to fly a plane other than what they had input into the Landing Aircraft Information Form. Should this happen, the Start Card Judge will simply need to overwrite the information that is propagated into the form from the query.

Mechanical Issues/No Keys

Should a contestant have a mechanical problem in the hot box or any time prior to taking off, or forget their keys, the Start Card Judge should attempt to be astute enough to observe this. The best corrective action is to locate that pilots Start Card and simply delete the contestant from that position. A radio call to the field needs to then be made when this is done instructing the other card judges to simply refresh their page. By looking at that ball number next to the affected heat, the judges will be able to verify that an aircraft was removed from that heat by the Start Card Judge, and as such, they will no longer have a card for that position. If time does not permit this to happen before the heat takes off, care will have to be exercised by the card judges to not assess any penalties to that position. After the heat is over, that position can then be deleted by the Start Card.

Sequence Changes/Cutoffs in the Traffic Pattern

This situation is handled just as it is with the paper landing cards. The individual card judges must pay attention and make certain that they are assessing any penalties to the proper aircraft.

Malfunction of the Electronic Landing Card System

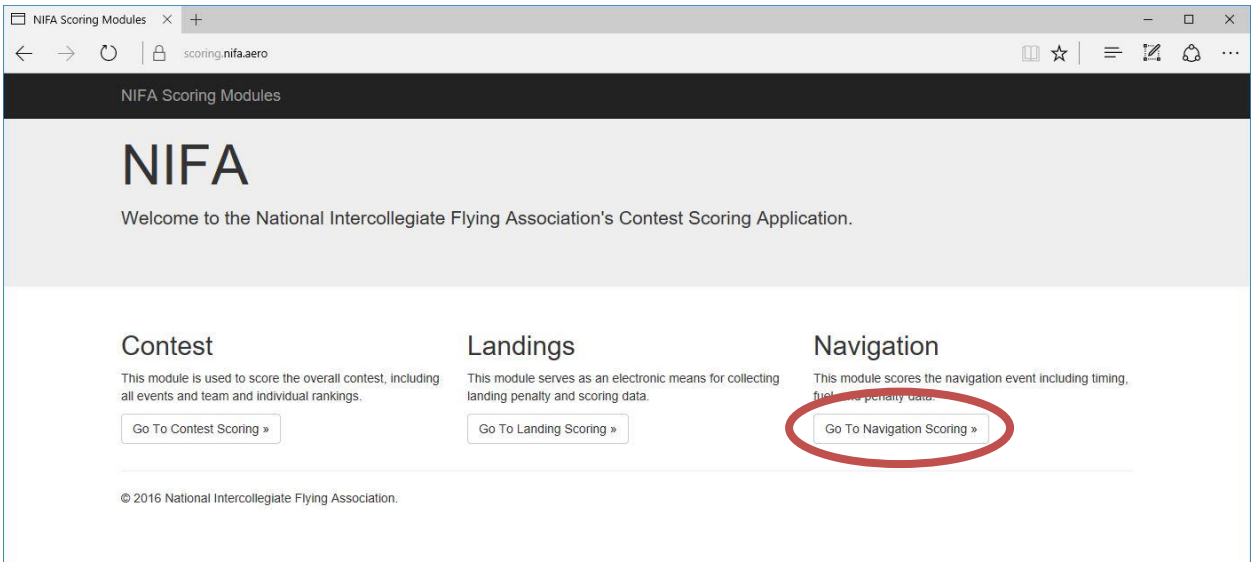
This is always a concern anytime an electronic system is used for any purpose. It is absolutely critical that some kind of paper backup or record be kept by each card judge for use in the unlikely event the Electronic Landing Card System fails. Any technique that works for a particular judge is acceptable, but one strongly recommended technique is to provide the judges with a heat sheet that has far more white space in each cell to write notes. This may mean that the judges heat sheet is now a few pages long instead of just one page, but it is a very simple and concise way to write down penalties in case the backup is needed.

Navigation Event Scoring Module - Administrative

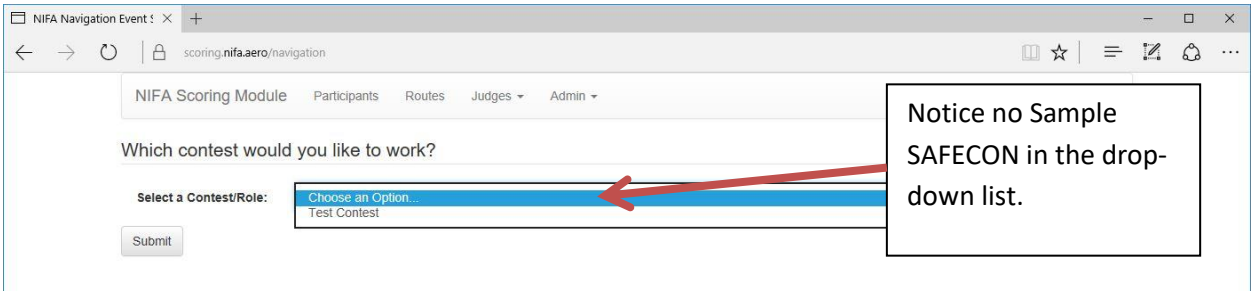
This section of the NIFA Scoring System User's Manual will discuss how to create the Navigation Event, how to link it to the Contest Scoring Module, and how to assign Users and permissions to the Navigation Event. We will continue to use our "Sample SAFECON" contest for this example.

Creating the Navigation Event

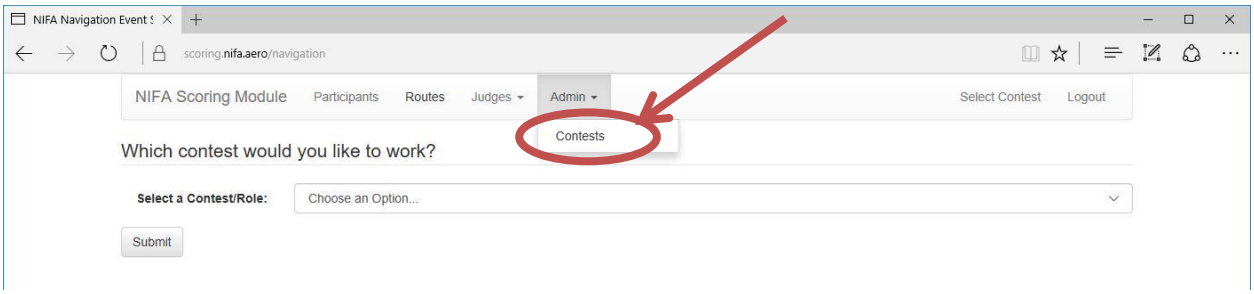
To create the Navigation Event, access the NIFA Scoring System and select the Navigation Scoring Module. Please see the "Access & Login" section of this manual for instructions on accessing the NIFA Scoring system.



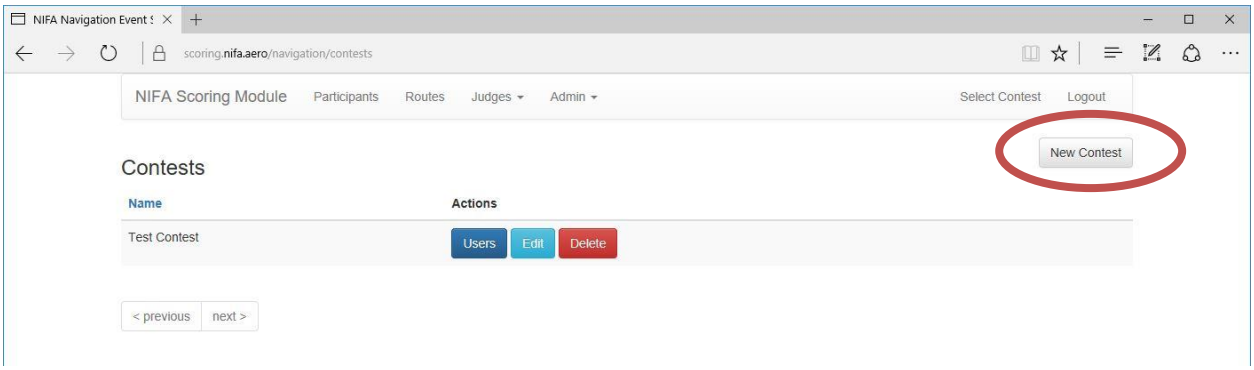
Once logged in, you will see the Navigation Scoring Module home screen:



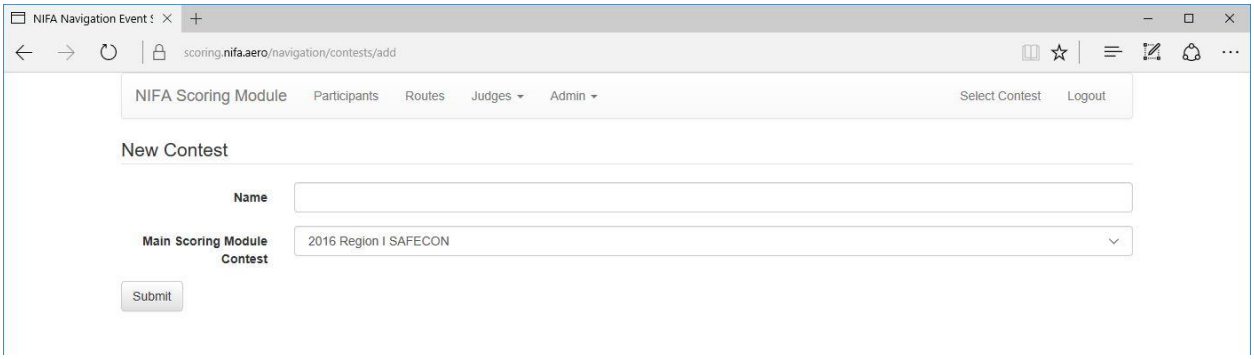
Select the competition you would like to work on from the drop down menu. You will notice our "Sample SAFECON" does not appear in the list. This is because we have not yet created the Navigation Event in our Sample SAFECON. In order to create our Navigation Event for our Sample SAFECON, click on "Admin" and then click on "Contests" from the drop-down menu that appears.



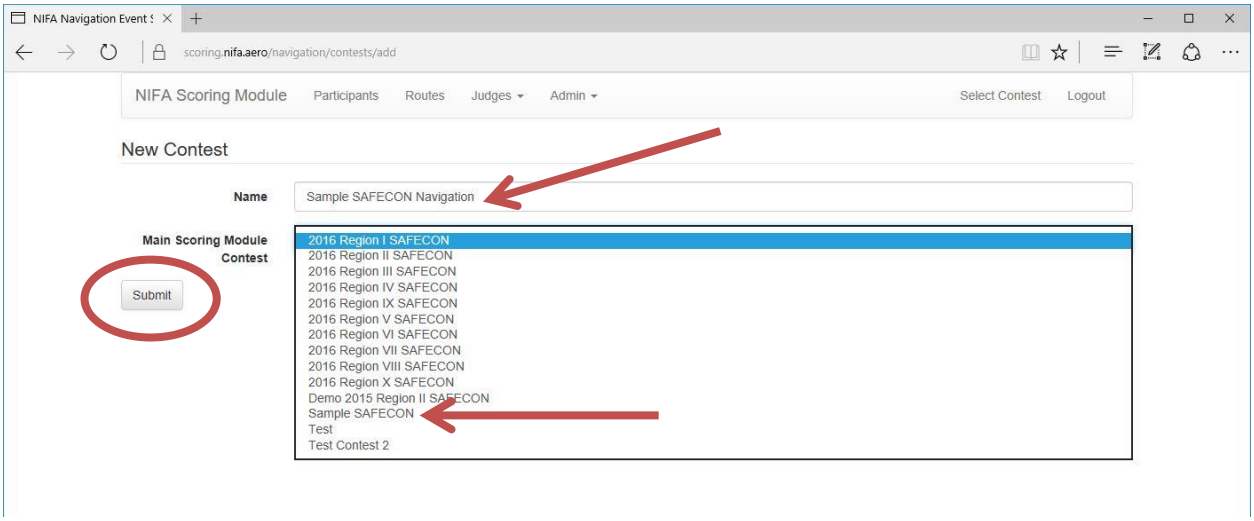
You will now see a screen similar to this one. You may have no contests displayed, or you may see a short list of contests. Your exact view will be determined by how many contests you have been assigned to in the past. Regardless, you will need to click on the "New Contest" button near the upper right corner to create the Navigation Event for Sample SAFECON.



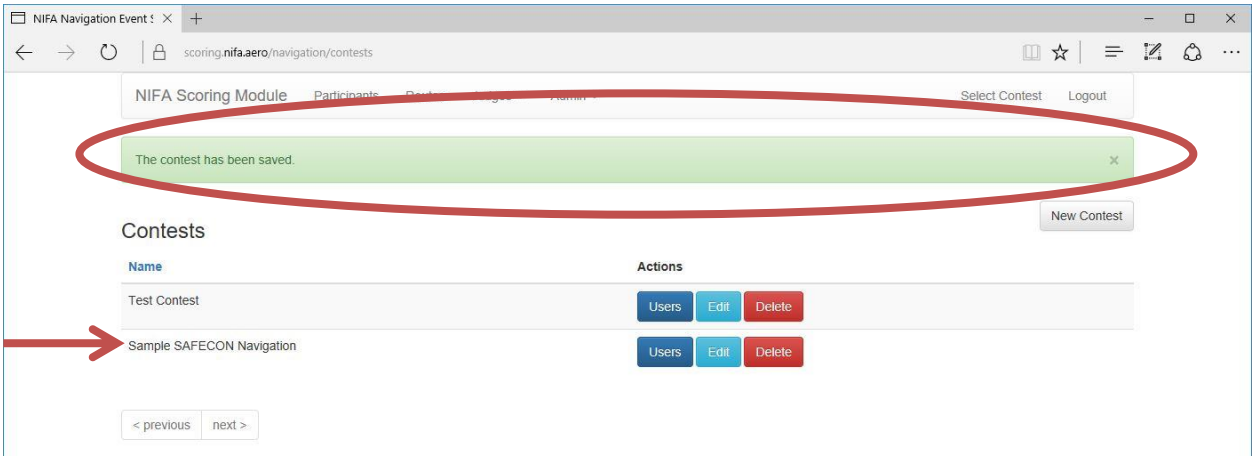
Clicking on “New Contest” will bring up the following screen:



From this screen, you will need to name the Navigation Event contest and also link it to the proper Main Scoring Module. For our example, we will name it “Sample SAFECON Navigation” and we will link it to the Sample SAFECON Main Scoring Module from the drop-down menu and then click on “Submit.” Suggested naming convention would be to simply title it with the year and scope (Regional or National) of your SAFECON.

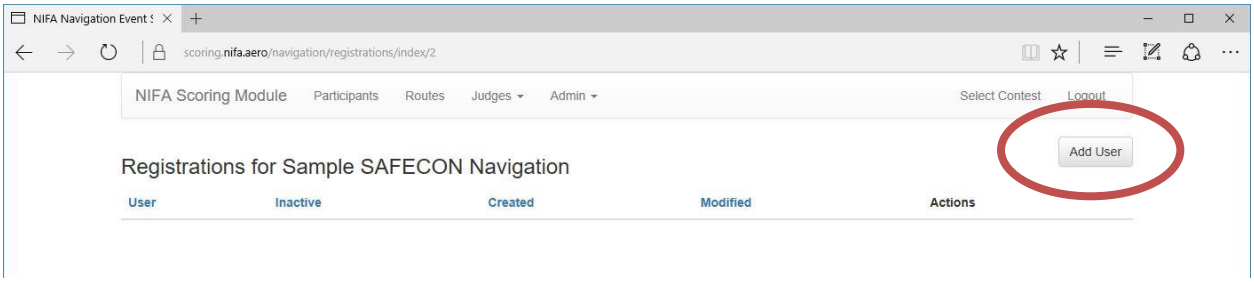


Once you have submitted your information, you will be returned to the list of all contests you have been assigned to in the past and you will see a green confirmation bar at the top stating that your contest was saved, and your contest will now appear in the list.

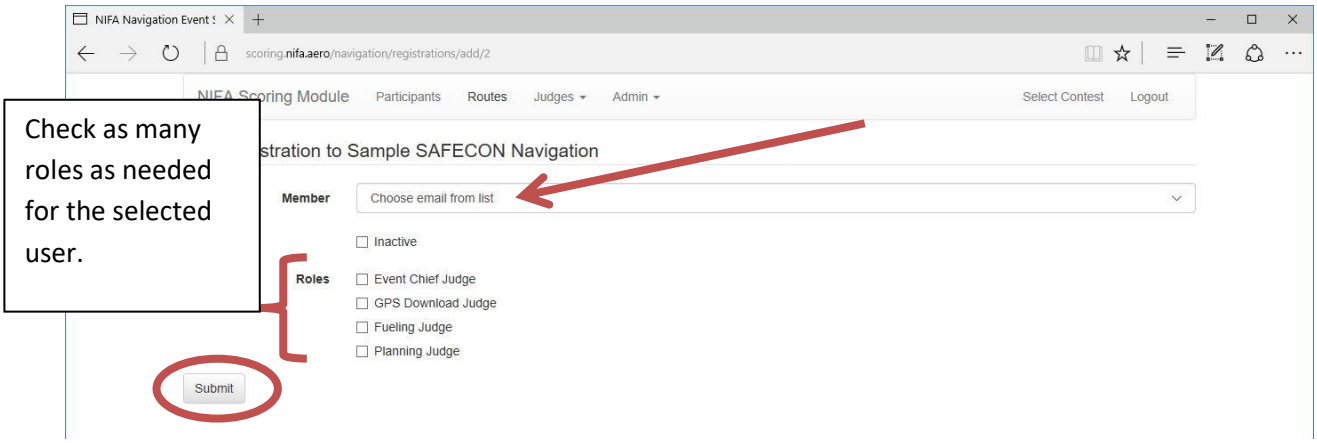


Assigning Users to the Navigation Event

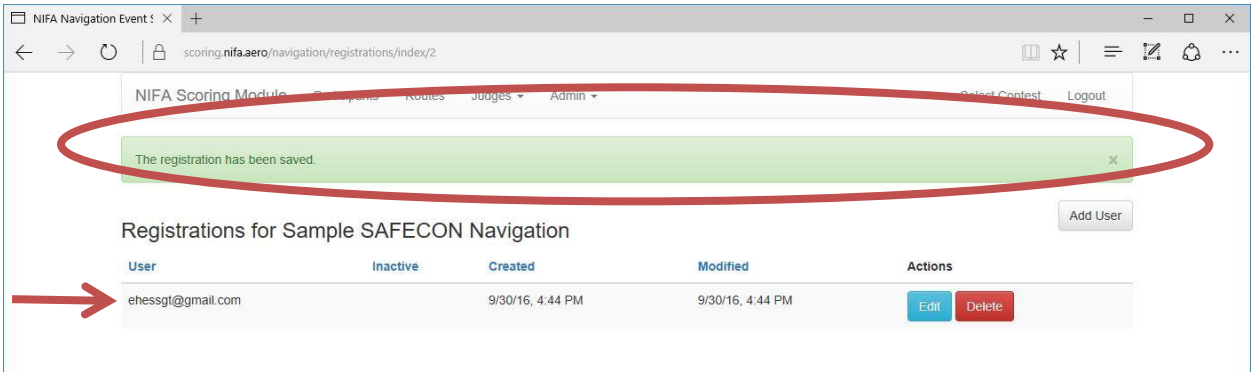
Now that we have created our Navigation Event for Sample SAFECON, we need to add Users, or Judges, to the event. To do this, click on the "Users" button as shown in the above image. You will now be presented with the screen that lists all users currently assigned to the event. To add Users to the Event, click on the "Add User" button in the upper right corner to begin.



To add a user, type in the email address associated with that user's nifa.aero account and select it from the drop-down menu. After selecting the user from the list, assign their roles. The user should only be granted access to the specific role they will be performing in the Navigation Event. You can select as many roles as needed by simply checking the box next to the desired role(s). Once you have chosen your user and assigned their roles, click on the submit button.

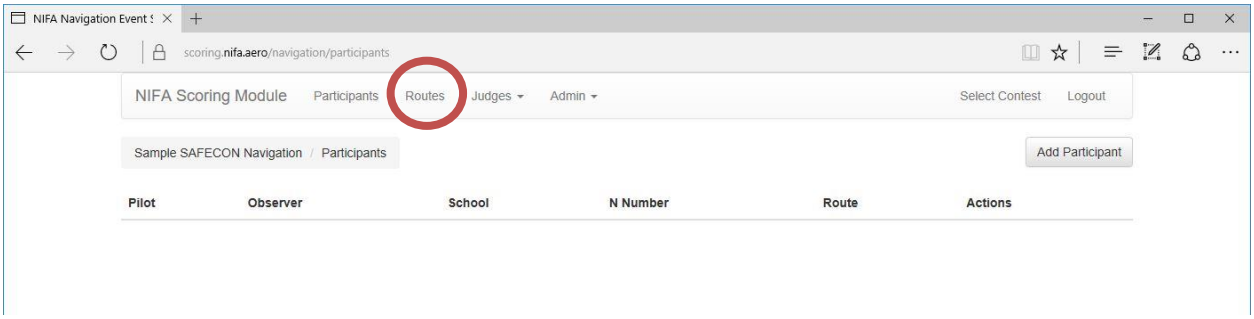


You will be returned to the list of current users and you will see the green confirmation bar at the top as well as now seeing your user added to the list.

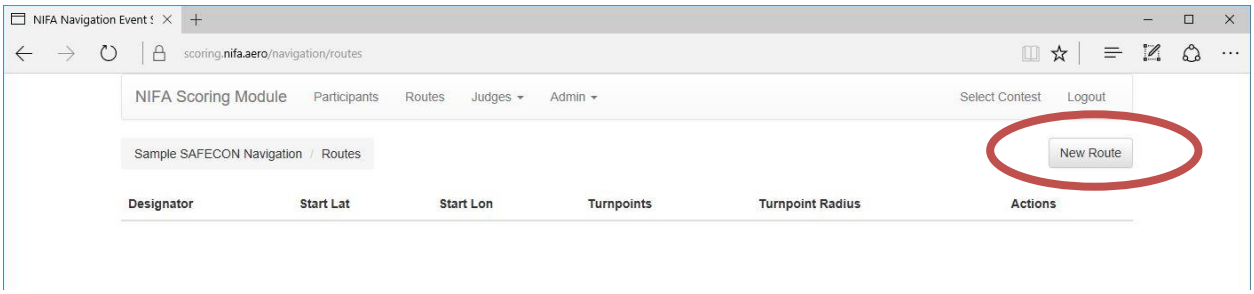


Building the Navigation Routes

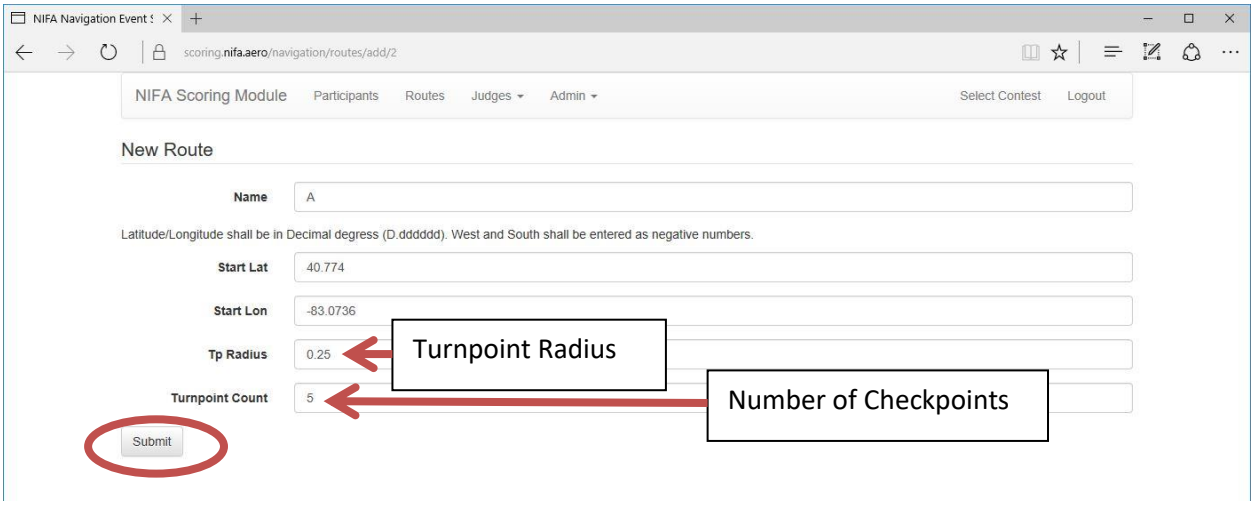
Now that we have created the Navigation Event in our Sample SAFECON, we must build the routes before we can run the event. To build the navigation routes, log in to the NIFA Scoring System Navigation Module and when presented with the home screen, choose the contest you would like to work, then click submit. We will continue working with our Sample SAFECON. You should now see this screen:



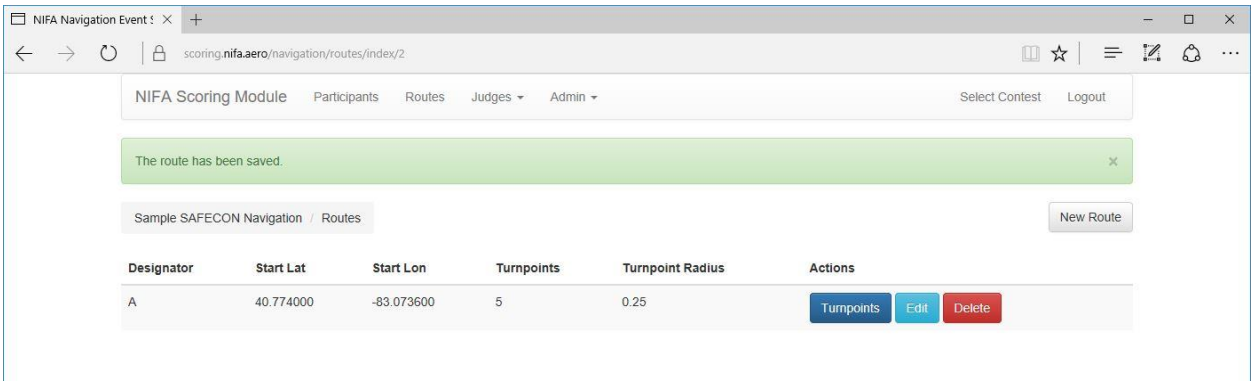
Once you have selected a contest to work, the default screen is the participant (contestant) list for that contest. To begin building the navigation routes, click on "Routes" from the menu bar at the top. You should now be at the page showing the navigation routes for Sample SAFECON.



This page will show the routes for Sample SAFECON. To begin building a new route, click on the "New Route" button in the upper right corner. You will be presented with the dialog to start building a new route. Enter the information asked for and when done, click on "Submit." It is recommended to name the routes using letters. The "Tp Radius" box is the radius of the turnpoint circle in nautical miles and the "Turnpoint Count" box is asking for the number of checkpoints. In this example we have entered a radius of 0.25 nautical miles and 5 checkpoints on route A.



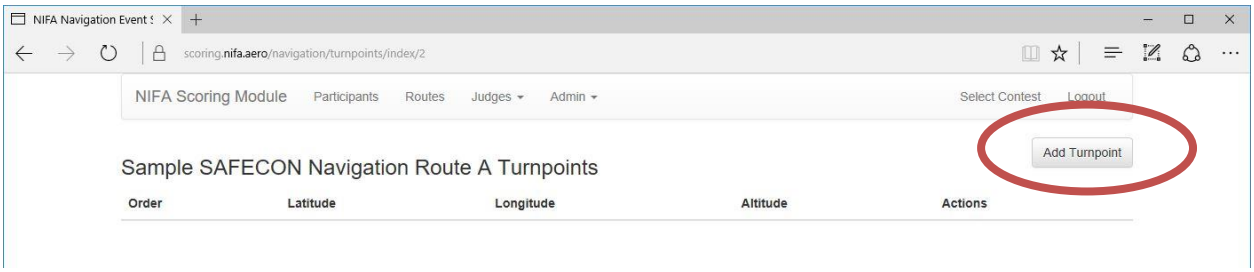
You will be returned to the list of navigation routes and you will see the green confirmation bar that your new route has been saved. You will need to do this for each of the navigation routes in your SAFECON.



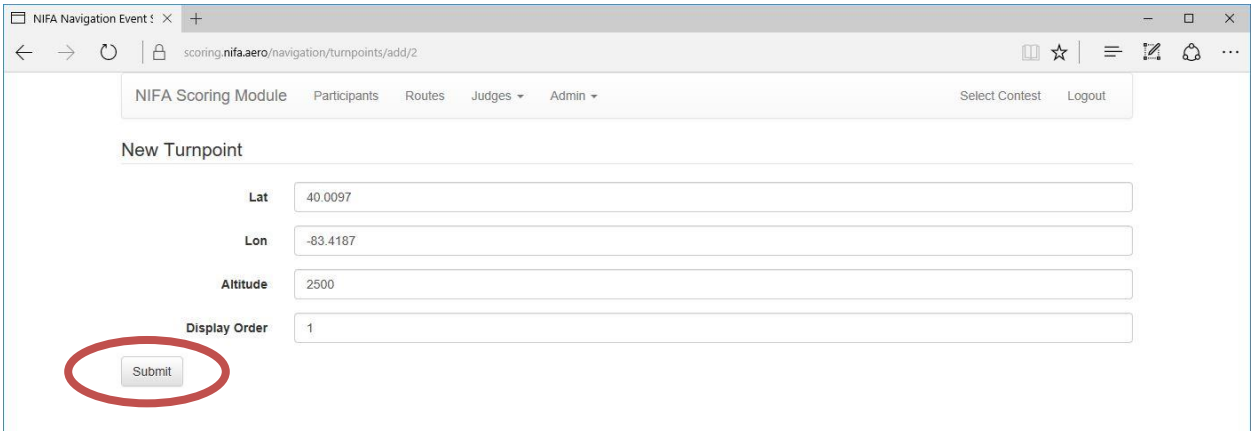
You will see your route with three actions you can perform:

- Turnpoints will allow you to enter the coordinates for the 5 turnpoints
- Edit will allow you to edit the route name, starting latitude, starting longitude, and turnpoint radius. You will not be able to edit the number of turnpoints.
- Delete will allow you to delete the entire route

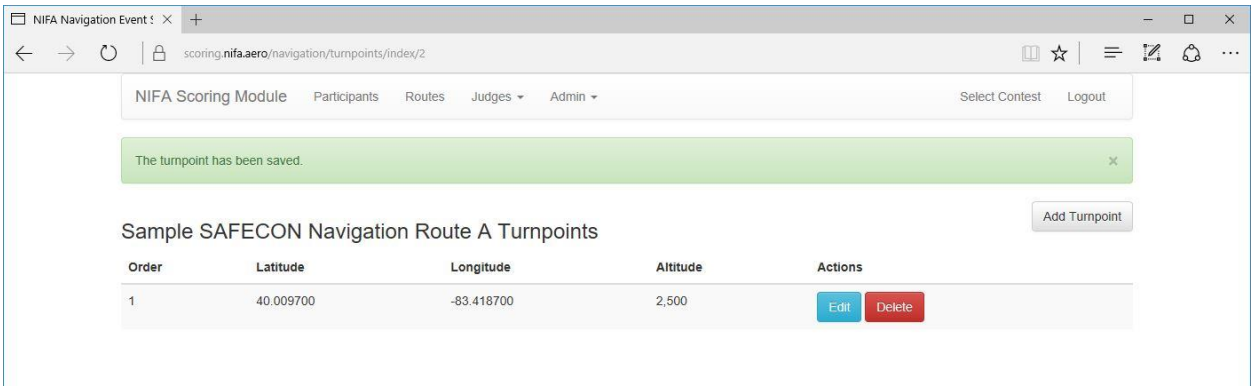
Click on the "Turnpoints" button to begin entering the coordinates for each turnpoint on the route.



Initially, you will see a blanks screen for turnpoints on route A. To begin entering the turnpoint coordinates, click on the "Add Turnpoint" button and fill in the required information. The coordinates must be entered in decimal degrees (DD.dddd) format and west longitude values must be entered as a negative value. See the below image for an example. The altitude over the checkpoint should be entered in MSL value (even though this metric is not scored, a value must be entered). The turnpoints can be entered in any order, so the "Display order" box tells the system what turnpoint this is. In our below example, we have entered the information for turnpoint #1 on route A. When satisfied, click "Submit."



You will now be returned to the list of turnpoints for Route A and will see the green confirmation bar and the new turnpoint added to the list. You will need to repeat this process for each of the turnpoints on Route A.



You will see two actions you can perform to that turnpoint:

- Edit will allow you to edit any of the information you entered for that turnpoint
- Delete will allow you to delete that turnpoint.

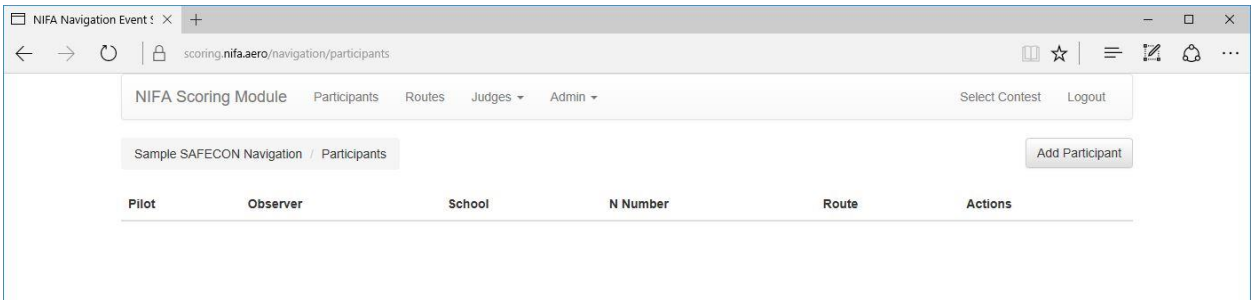
Now that you have successfully set up and built your Navigation Event and Routes, you are ready for the Navigation Event.

Navigation Event Scoring Module – Scoring

This section of the NIFA Scoring System User's Guide will discuss how to conduct the Navigation Event in the scoring system. The design of the system is such that participants (contestants) and their scoring data are entered into the system as the event progresses. This section of the manual will follow along with the process a student would go through in the event and how the judges will interact with the Navigation Scoring Module during the Navigation Event. Data access across the airport is beneficial for scoring the navigation event. The intent of the system is to enter data as it is generated (planning, GPS download, and refueling) so that a score is computed automatically as the event progresses. This will reduce the possibility of fatigue or other errors in the data entry process later on. Should data access not be available, it is possible to upload the information at the completion of the event once back in an area with internet access. We will continue to use our Sample SAFECON example.

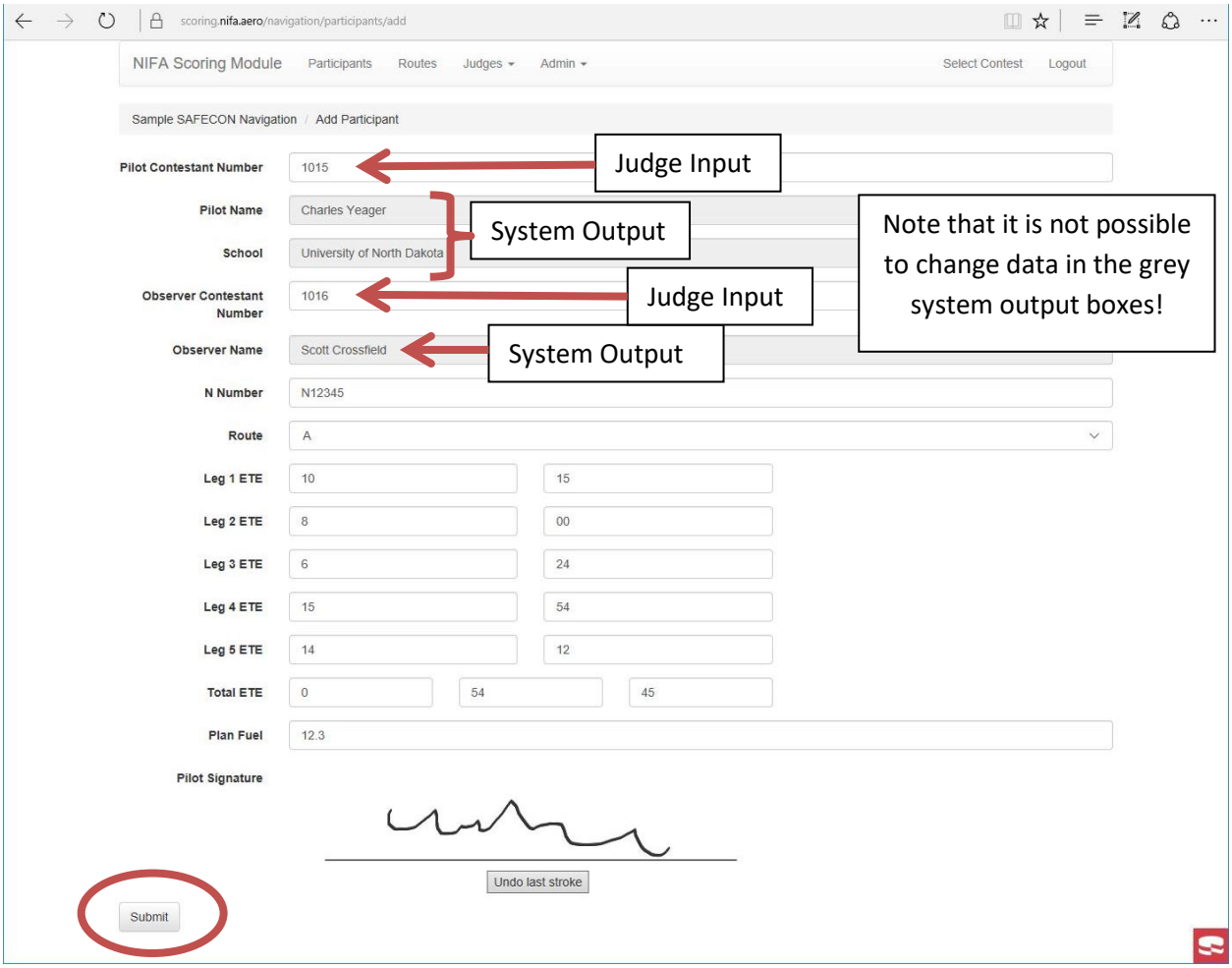
Adding a Participant

The first step in creating a score for a participant is to add them to the Navigation Scoring Module. This will happen after the student has completed their flight planning and had it verified by a judge in the planning room and before the student leaves to go to his/her airplane. To add a participant, an authorized judge in the planning room must be logged in to the Navigation Scoring Module and have selected the participants screen.

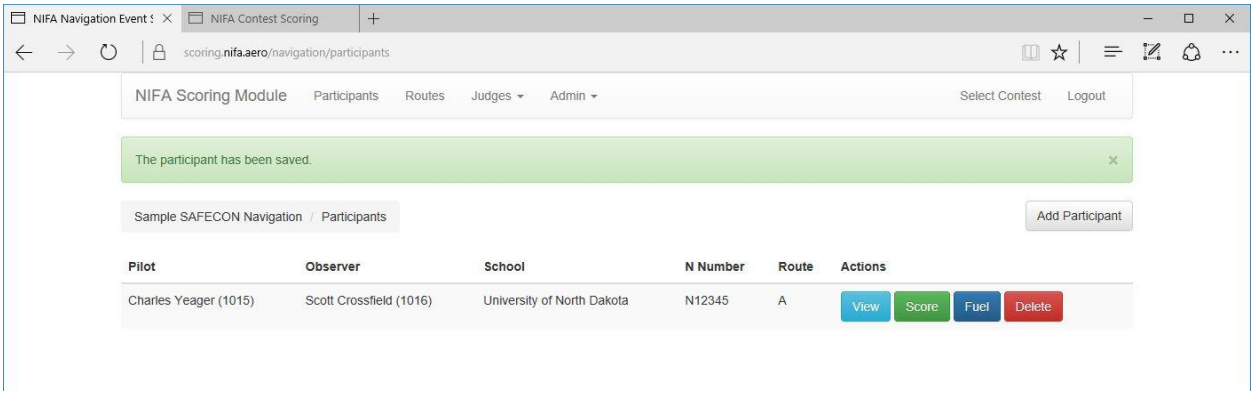


Once the student's planning is finished and verified, the student will sit down with the judge and the judge will click on the "Add Participant" button at the top right of this screen.

When the add participant screen appears, the judge should input the pilot ID number and verify the returned name matches the pilot. The judge should then input the safety observer ID number and verify the correct name is returned. At this point, the judge should ask the student to select the route and the student should enter their flight planning information into the scoring system. Once the student has verified it, have the student sign their name and click on the "Submit" button. It is very important to have the student enter and sign off on the data, not the judge! Having the student input this information will help to absolve the judging staff of being blamed for incorrect data entry.



You will now be returned to the participant list page and you will see the green confirmation bar at the top and the participant will now appear in the list.



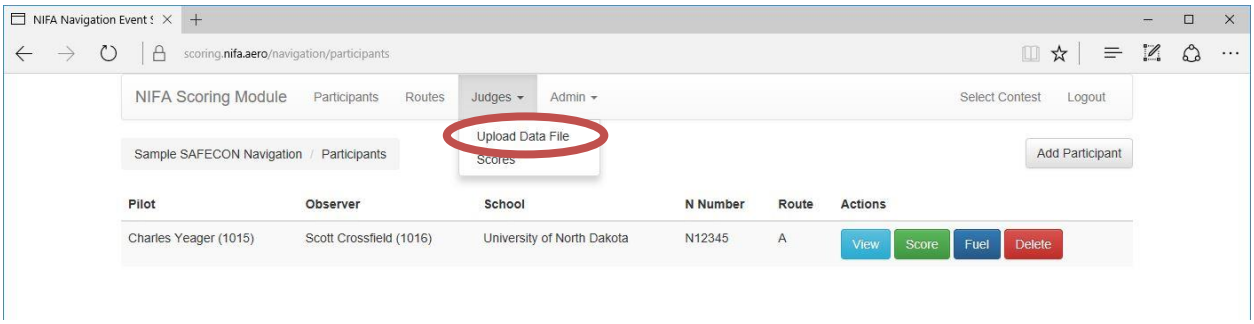
There are four actions that can be performed for each contestant in the list:

- View will allow you to simply view the flight planning information the contestant entered. You will not be able to edit this by design. We do not want to have the ability to change data the student entered and signed off on.
- Score will allow you to view the complete score for the contestant as well as giving you entry options for uploading GPX files, fuel data, or other penalties such as incorrect symbols.
- Fuel will allow you to enter the actual fuel used for the contestant.
- Delete will delete all scoring data for this contestant. If the contestant made a mistake on his/her data entry, you will need to delete them and then start over.

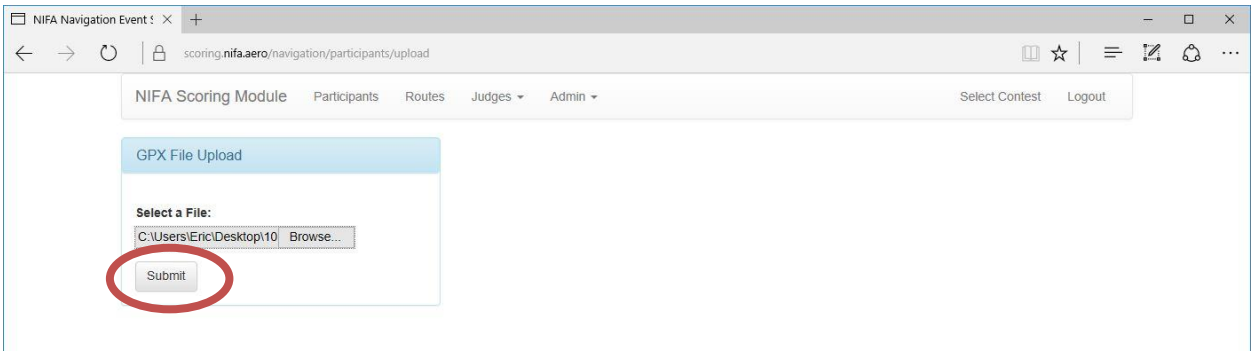
These four actions will allow us to run the event without data access in the field, we can save the pertinent data and upload it at the end of the event through the use of these actions.

GPS File Upload

The second point of data that is generated and needed for scoring the contestant will be the GPS track that is downloaded after the contestant has completed flying the navigation route. The judge should download, name, and save the track as per current procedures. Once that is done, the judge will then upload the GPS file to the Navigation Scoring Module. To do this, the GPS download judge will need to log in to the Navigation Scoring Module and from the header click on the "Judges" drop-down menu and then click on "Upload Data File."

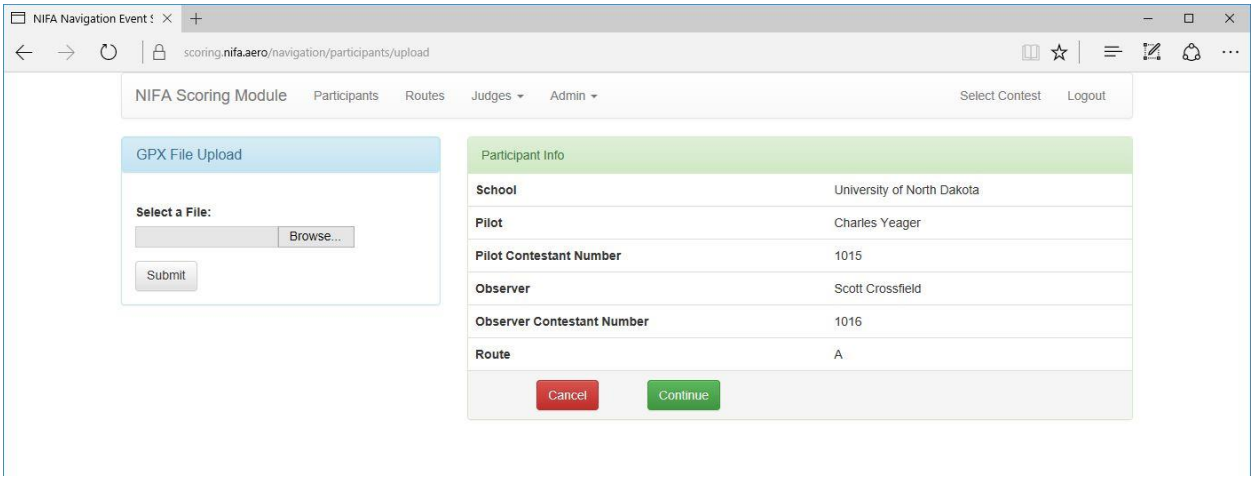


The file upload window will now be displayed.

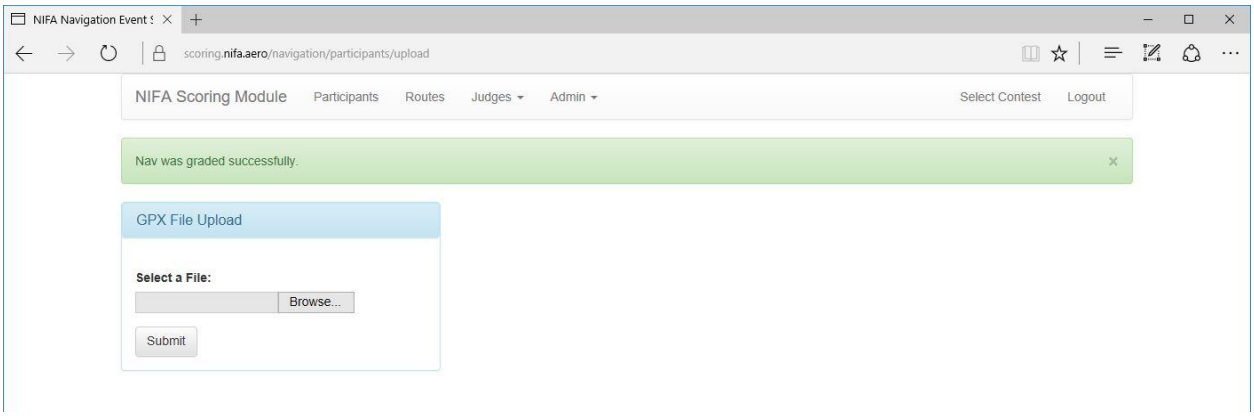


Browse through your device and select the data file for the contestant that has been downloaded and saved and then click the "Submit" button.

Once the file is uploaded, you will see the following screen asking you to verify this is the correct data file and asking if you wish to continue.

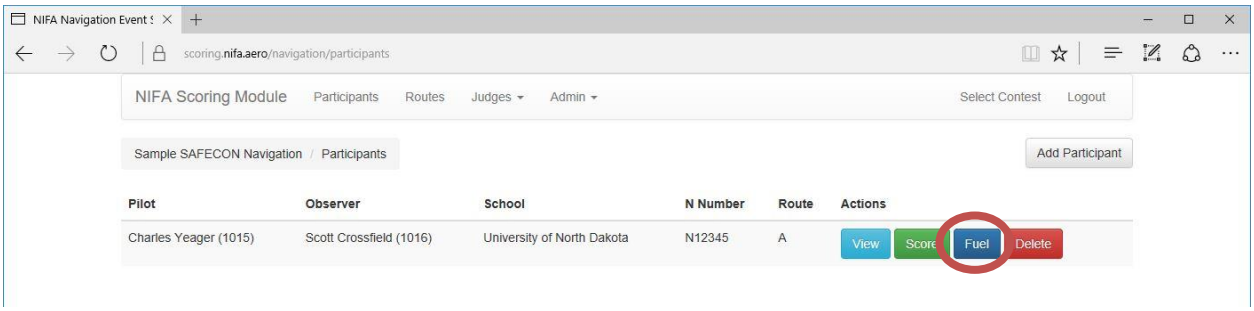


Verify that the Pilot and Safety Observer information and the Route is correct and if so, click on the "Continue" button to upload this file to the Navigation Scoring Module. You will see the following confirmation screen.

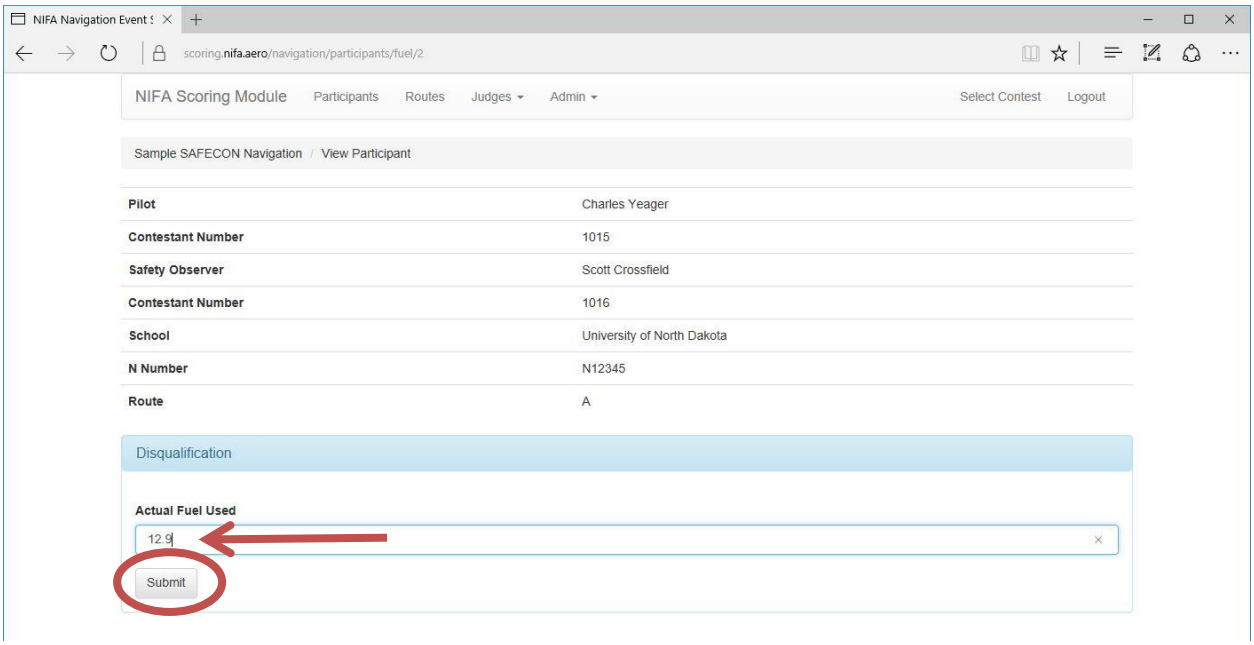


Entering Actual Fuel Used

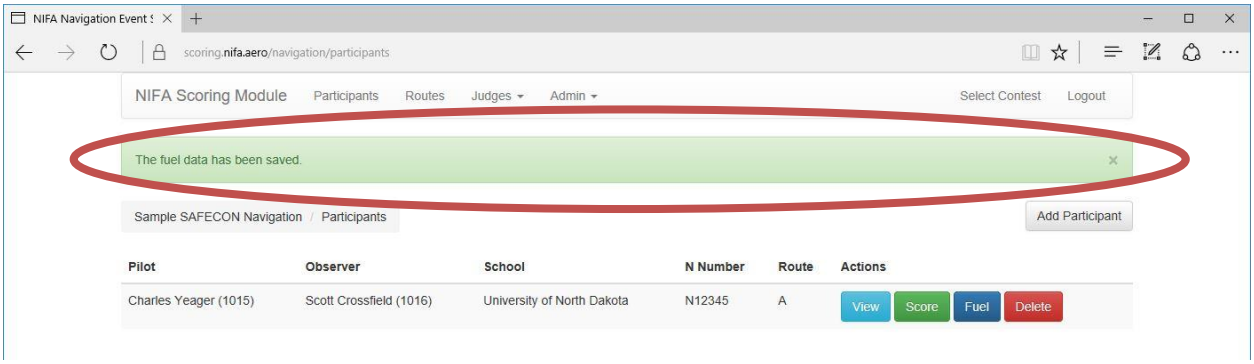
The third point of data that is generated and needed for scoring is the actual fuel burn. To enter the actual fuel used into the Navigation Scoring Module for computing fuel penalty points, the authorized judge will need to log in to the Navigation Scoring Module and from the participants list screen select the "Fuel" action button next to the contestant they wish to enter fuel data for.



The screen for entering fuel used will appear. Enter the actual fuel burn from the fuel truck meter into the field and click the "Submit" button once the information is verified correct. In this case we have entered a fuel used of 12.9 gallons.

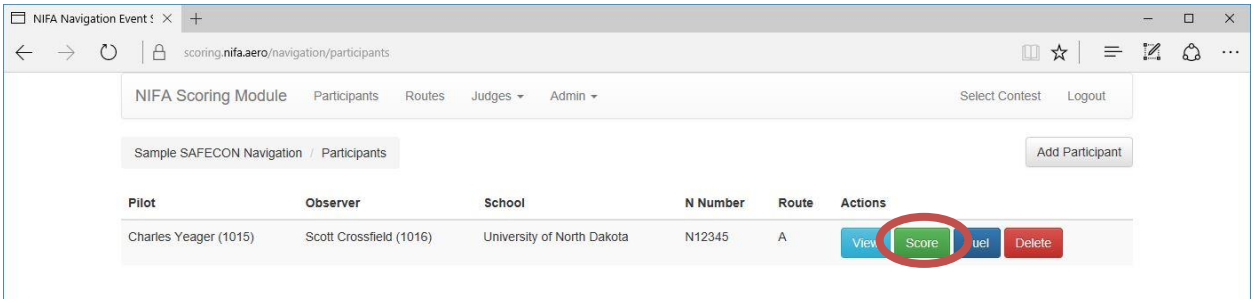


You will be returned to the participant list and see the green confirmation bar at the top that the fuel data was saved.

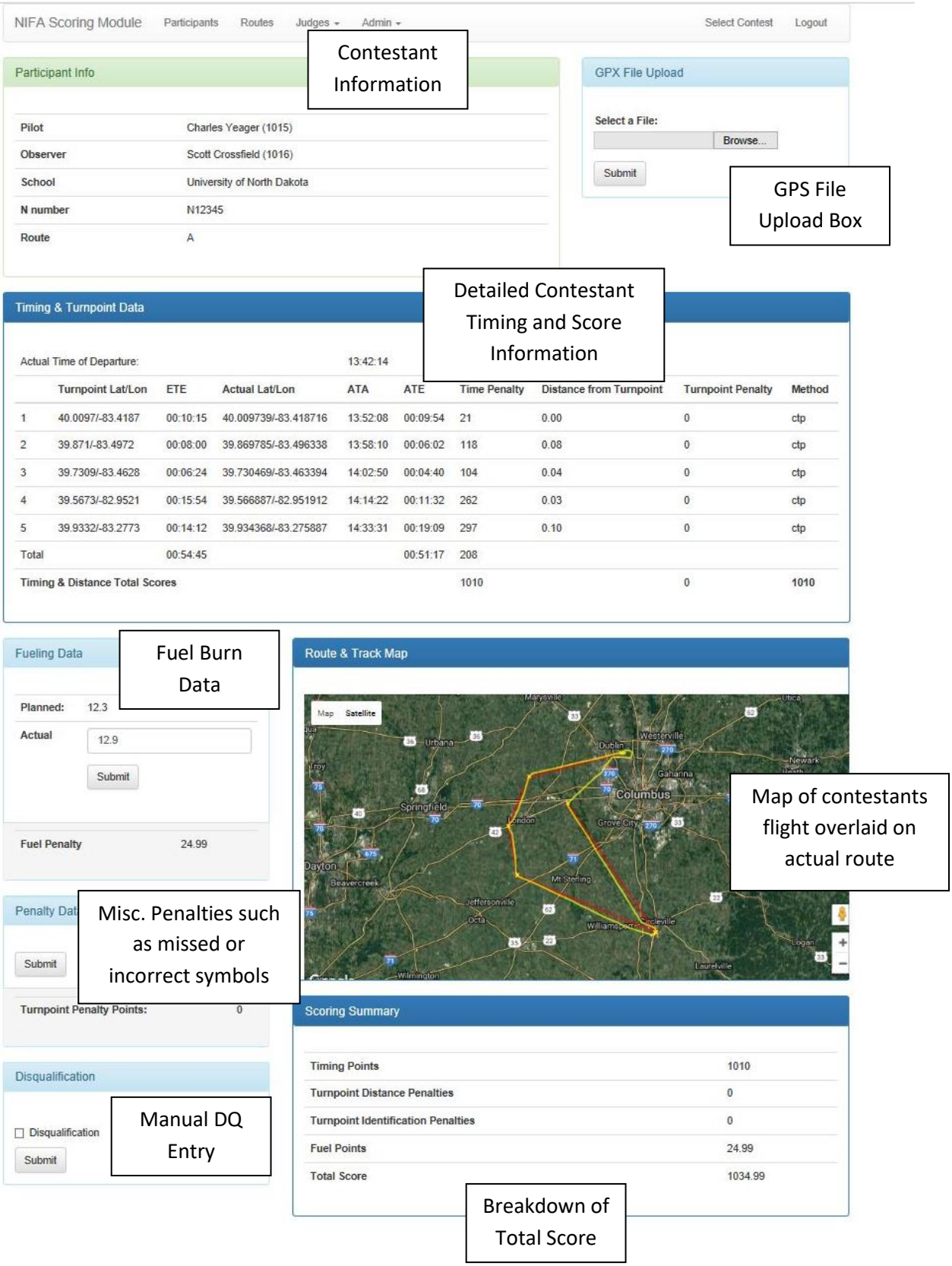


Entering Miscellaneous Penalties, Editing Data, & DQ's

To enter miscellaneous penalties (such as missed or incorrect symbols) or edit data that has already been entered for a contestant, navigate to the participant list for your contest in the Navigation Scoring Module and click on the "Score" button next to that contestant.



The Score page contains a box for adding the miscellaneous penalties and shows the contestants score. The Score page also allows for editing or entering all the data needed to compute a score for a participant. If there is no internet access to enter the GPS files and fuel burn in real-time from the field as the event is progressing, this is the page you would use to manually input that data at the completion of the event. Also on the Score page is the box to manually enter a disqualification for a contestant. The system will not automatically disqualify a contestant. This must be done manually by a judge after reviewing the route, flight planning, score, or other material that may warrant a disqualification. The Score page also include detailed results of the contestants score and a map of the contestants track overlaid on the actual navigation route. The following page shows and describes the Score page in detail.


NIFA Scoring Module
Participants
Routes
Judges
Admin
Select Contest
Logout
Contestant Information
Participant Info
Pilot Charles Yeager (1015)
Observer Scott Crossfield (1016)
School University of North Dakota
N number N12345
Route A
GPX File Upload
Select a File:
Browse...
Submit
GPS File Upload Box
Detailed Contestant Timing and Score Information
Timing & Turnpoint Data
Actual Time of Departure: 13:42:14
Turnpoint Lat/Lon | ETE | Actual Lat/Lon | ATA | ATE | Time Penalty | Distance from Turnpoint | Turnpoint Penalty | Method
1 | 40.0097/-83.4187 | 00:10:15 | 40.009739/-83.418716 | 13:52:08 | 00:09:54 | 21 | 0.00 | 0 | ctp
2 | 39.871/-83.4972 | 00:08:00 | 39.869785/-83.496338 | 13:58:10 | 00:06:02 | 118 | 0.08 | 0 | ctp
3 | 39.7309/-83.4628 | 00:06:24 | 39.730469/-83.463394 | 14:02:50 | 00:04:40 | 104 | 0.04 | 0 | ctp
4 | 39.5673/-82.9521 | 00:15:54 | 39.566887/-82.951912 | 14:14:22 | 00:11:32 | 262 | 0.03 | 0 | ctp
5 | 39.9332/-83.2773 | 00:14:12 | 39.934368/-83.275887 | 14:33:31 | 00:19:09 | 297 | 0.10 | 0 | ctp
Total 00:54:45 00:51:17 208
Timing & Distance Total Scores 1010 0 1010
Fueling Data
Fuel Burn Data
Planned: 12.3
Actual 12.9
Submit
Fuel Penalty 24.99
Route & Track Map
Map
Satellite
Columbus
Dublin
Springfield
Dayton
Map of contestants flight overlaid on actual route
Penalty Dat
Misc. Penalties such as missed or incorrect symbols
Submit
Turnpoint Penalty Points: 0
Disqualification
Disqualification
Submit
Manual DQ Entry
Scoring Summary
Timing Points 1010
Turnpoint Distance Penalties 0
Turnpoint Identification Penalties 0
Fuel Points 24.99
Total Score 1034.99
Breakdown of Total Score

Help, Resources, and Errata

Need Help?

If you need any help with the NIFA Scoring System please email: scoringsystemhelp@nifa.aero

Uploading Scanned Answer Sheets

Please email a PDF file with your scanned ground test answer sheets to: remark@nifa.aero

Please be sure to be specific about what region you are sending and what test you are sending.

Errata

For any errors in this document, please email erich.hess@nifa.aero

This section will be expanded and improved as time permits.