The Air & Space Forces Association's

CYBERPATRIOT

The National Youth Cyber Education Program

NEW COACH WORKSHOP

AIR & SPACE FORCES ASSOCIATION (AFA)

- AFA is a 501(c)(3) non-profit organization focused on:
  - Educating the American public
  - Advocating for strong national security
  - Supporting military members and their families
- Historical focus on advocating for strong national security policies

CYBERPATRIOT PROGRAMS

High School & Middle School

National Youth Cyber Defense Competition

AFA CyberCamps

Elementary School

Elementary School Cyber Education Initiative

Cyber Education Literature Series

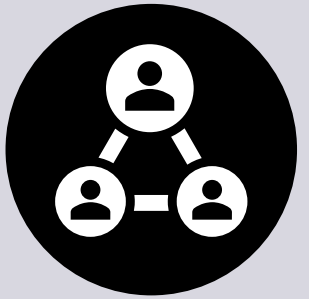
Volunteers (14+)

Tech Caregivers

Senior Citizens

CyberGenerations

Ages 16+



Alumni Network

Attract K-12 students to STEM education and careers

Community Service Opportunity

Protect vulnerable population

Keep CyberPatriot Alumni Engaged

NATIONAL YOUTH CYBER DEFENSE COMPETITION

Nationwide competition that challenges teams of students to find and fix cybersecurity vulnerabilities within virtual operating systems

Grades 6-12

REGISTRATION

- Coach registers the team(s)
- Adds students to roster
  - 2-6 students per team
- Finds technical mentor or team assistant (optional)

TRAINING

- 12 training modules (online)
- 4 practice rounds (online)
- Access to Cisco Networking Academy

COMPETITION

- 3+ scored rounds (online)
- Earn points for securing system
- Top teams advance to National Finals

NATIONAL YOUTH CYBER DEFENSE COMPETITION

- **Benefits to student participants:**
  - Technical skill building
  - Leadership, teamwork, creative problem solving
  - Scholarship opportunities
  - Internship opportunities
  - Competitive advantage in job market (especially with CyberPatriot sponsor companies)

TEAM STRUCTURE

Team Roles Explained

COACH
(REQUIRED)

- Adult leader – teacher, parent, youth group advisor, etc.
- Must be verified by organization administrator
- May coach up to 5 teams (30 competitors)
- Responsible for registering competitors to roster
- Sole point of contact for competition-related correspondence
- Must be present during competition rounds to enforce competition rules and ensure team safety
- Does NOT need to be technically savvy

COMPETITORS
(REQUIRED)

- Youth members of the organization -- Must all be part of a common organization
- Must be registered to a team roster by the coach
- May have up to six (6) competitors on a team roster
- May only compete on one team – Cannot be registered to multiple rosters
- During rounds: Max of five (5) active competitors - one (1) substitute

TEAM STRUCTURE

Team Roles Explained

TECHNICAL MENTOR (OPTIONAL)

- Technically savvy volunteer who supports teams
- Flexible time commitment. Volunteers as much or a little as desired.
- Experienced with Windows, Linux, and/or Cisco Networking
- Must be at least 18 years of age
- Must complete background check

TEAM ASSISTANT (OPTIONAL)

- Non-technical volunteer who support teams
- Helps with administrative and logistical tasks – scheduling, room set-up, etc.
- Flexible time commitment. Volunteers as much or a little as desired.
- Must be at least 18 years of age
- Must complete background checks

COMPETITION DIVISIONS

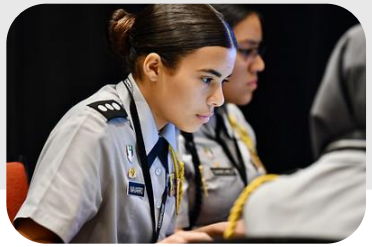
Three independent divisions. Teams scored only within their respective divisions.

Open (HS)

- Public, Private, Parochial, Magnet, or Charter schools
- Home school groups
- 4-H clubs
- Boys and Girls clubs
- Scouting units
- Other youth programs

All Service (HS)

- Air Force JROTC
- Army JROTC
- Marine Corps JROTC
- Navy JROTC
- Civil Air Patrol
- Naval Sea Cadet Corps
- Space Force JROTC
- Coast Guard JROTC



Middle School (MS)

- Public, Private, Parochial, Magnet, or Charter schools
- Home school groups
- 4-H clubs
- Boys and Girls clubs
- Scouting units
- Other youth programs

TEAM REGISTRATION FEES

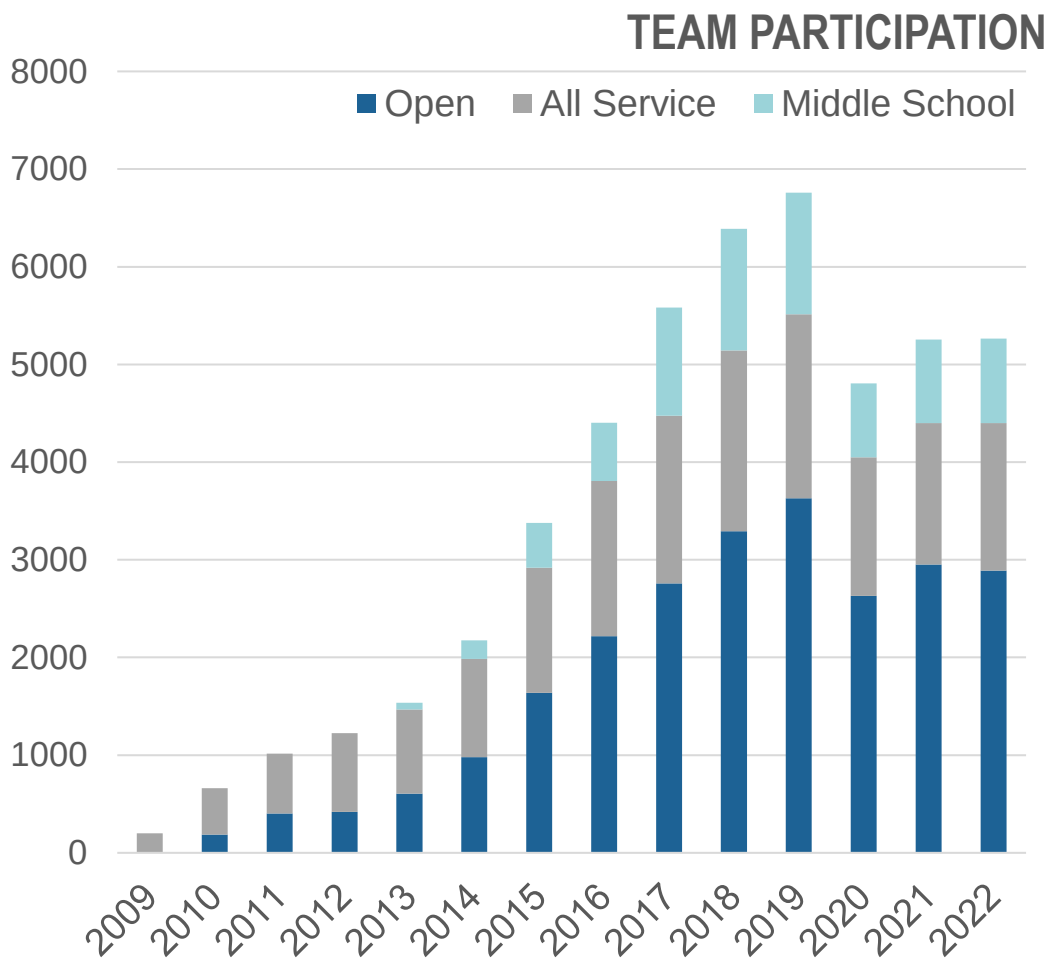
	Open Division	All Service Division	Middle School Division
Registered before July 1	$180 / team	Fees are waived for all JROTC, Civil Air Patrol, and Naval Sea Cadet teams	$140 / team
Registered after July 1	$225 / team		$175 / team

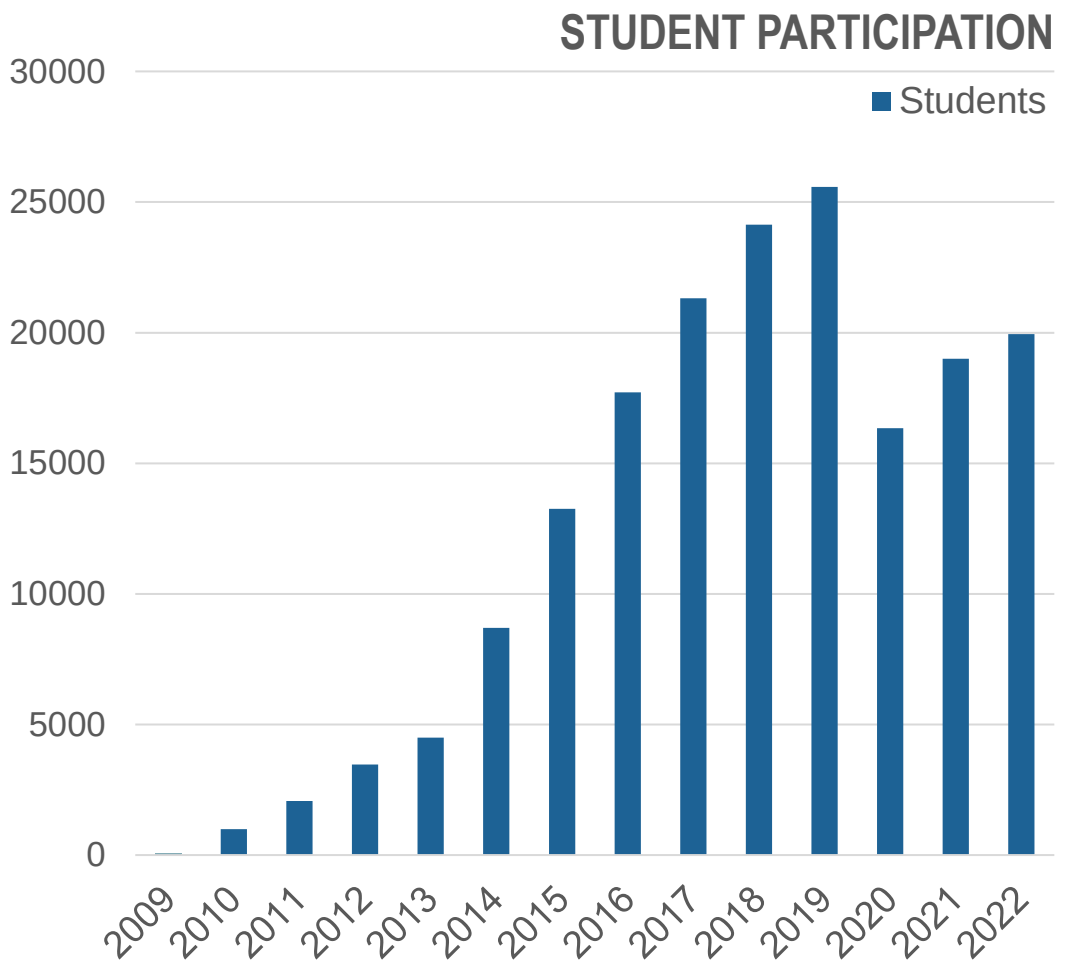
ADDITIONAL FEE WAIVERS:

Open and Middle School Division teams may request fee waivers for:

- **Title I Schools** (with letter proving Title I status)
- **All-girl teams** (once roster is complete)

REGISTRATION NUMBERS





COMPETITION TIMELINE

CyberPatriot XVI (2023-2024) Competition Timeline

REGISTRATION DEADLINES

April 1
Team Registration Opens
20% discount for teams registered by July 1

October 3
Team Registration Closes

October 25
Roster Finalization

November 15
Payment Due

TRAINING ROUNDS

Exhibition Rounds
Round 1 – May 11 – June 13
Round 2 – July 20 – August 22

Training Round
September 8 – October 4

Sneak Preview
TBD

Practice Round
October 5 – 15

MIDDLE SCHOOL DIVISION COMPETITION ROUNDS

Introductory Round
November 2 – 6

State Round
December 7 – 11

Semifinals
January 18 – 20 (3 days Only)

National Finals
(In-Person event, Bethesda, MD)
March 15-19

HIGH SCHOOL DIVISIONS COMPETITION ROUNDS

Round 1
October 19 – 23

Round 2
November 2 – 6

State Round
December 7 – 11

Semifinals
January 18 – 20 (3 days Only)

National Finals
(In-Person event, Bethesda, MD)
March 15-19

TIME COMMITMENT

- The amount of time devoted to CyberPatriot depends on the team. Some teams meet once a month, others once or twice a week
- **Recommended time commitment:**
  - One (1) or two (2) meetings per week (1-2 hours)
  - Practice tasks assigned to competitors and completed outside of meetings
  - Student learns one topic, then teaches that topic to teammates

The Air & Space Forces Association's

CYBERPATRIOT

The National Youth Cyber Education Program

REGISTRATION PROCESS

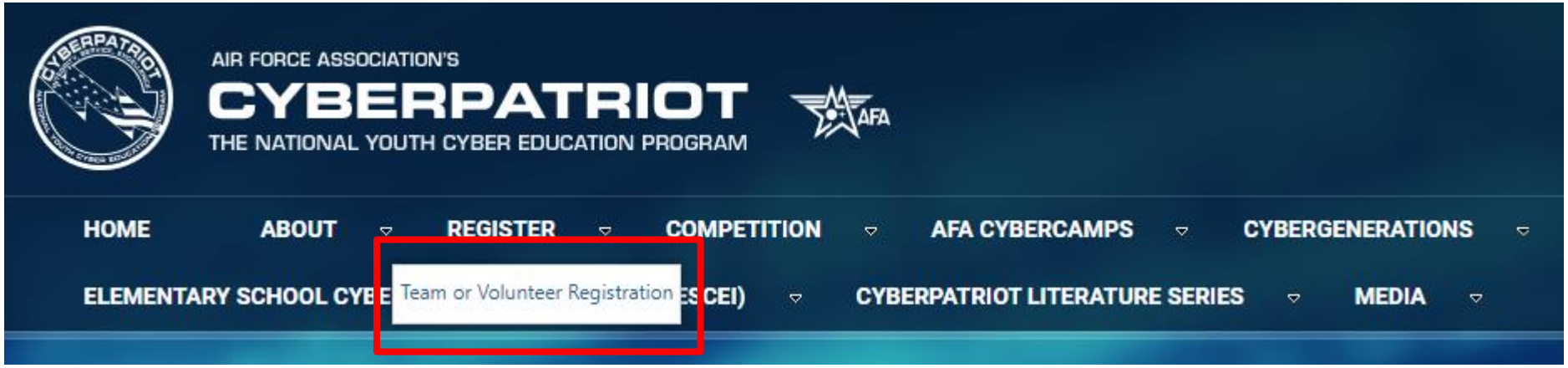
REGISTRATION DEADLINES

Important registration dates and deadlines:

DATE	TASK
April 1, 2023	Registration Opens 20% early-bird discount offered
July 1, 2023	End of 20% early-bird discount
October 3, 2023	**Team Registration Deadline** This is the last day to register a new team. Competitors do not need to be registered at this point.
October 25, 2023	Competitor Registration Deadline This is the last day to add competitors to a roster or move competitors between rosters.
November 15, 2023	Registration Fee Payment Deadline This is the last day to submit your registration fee payment, request a fee waiver, or submit a PO for payment.

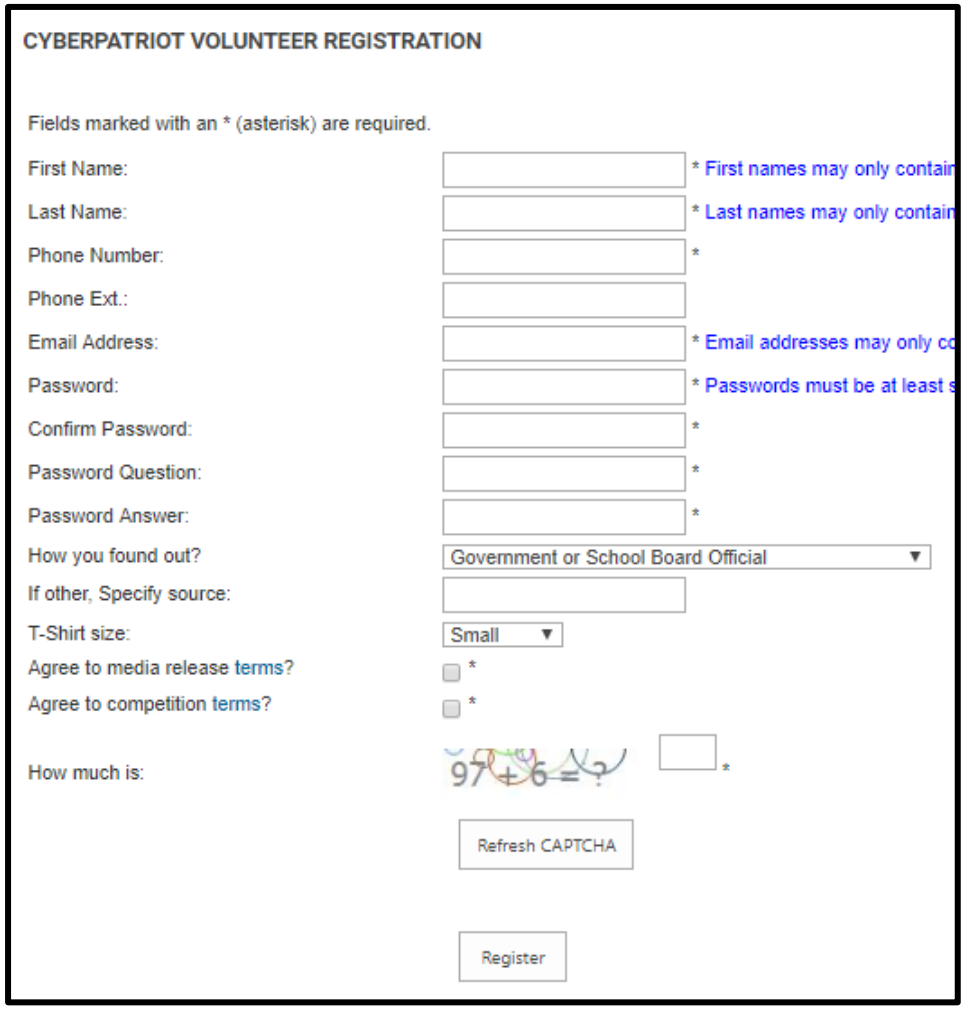
VOLUNTEER REGISTRATION

- New volunteers (coaches, technical mentors, team assistants) must create a volunteer account before registering for the competition.
  - Go to www.uscyberpatriot.org
  - Click ‘Register’
  - Select ‘Team or Volunteer Registration’



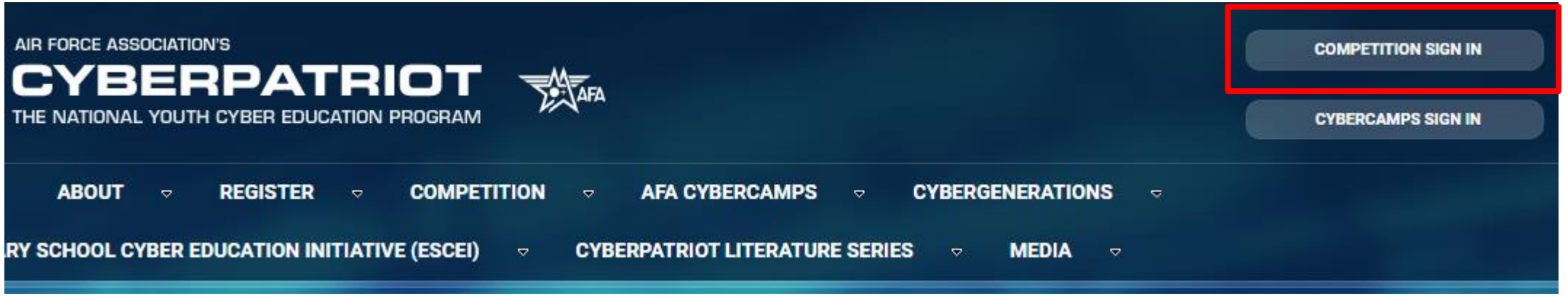
VOLUNTEER REGISTRATION

- Complete all fields on form
- Click ‘Register’
  - You will receive a confirmation email, but you can log in as soon as the form has been completed
  - Check spam/junk folder if email is not received



VOLUNTEER REGISTRATION

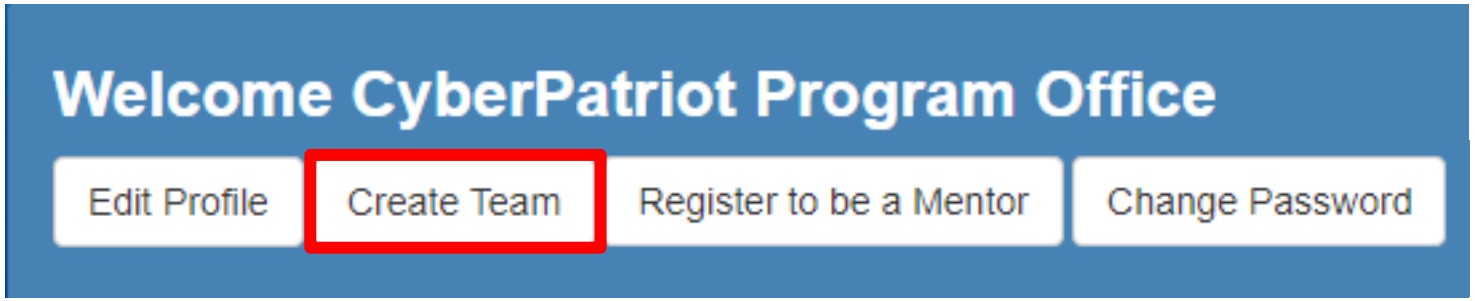
- To sign in, click ‘Competition Sign In’ on homepage



- Log-in with the username (email address) and password created during volunteer registration process.

COACH / TEAM REGISTRATION

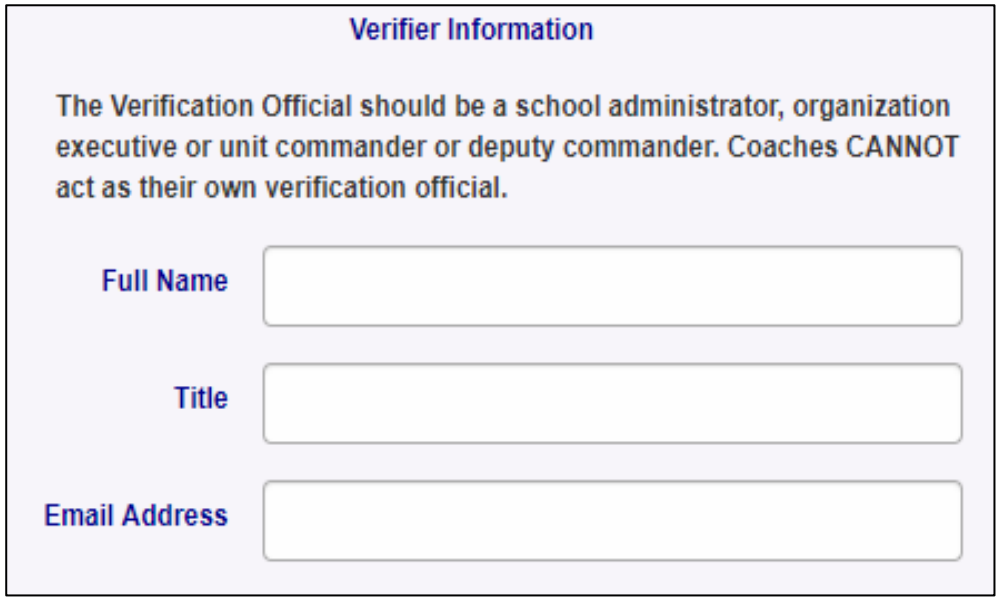
- Scroll down to the blue welcome box
- Click ‘Create Team’
- Registering a team from your account automatically makes you the coach of the team.



You may experience a glitch where information does not appear on the dashboard. If this happens, sign out and sign back in, or try a different web browser. If the problem persists, contact our registration staff by emailing info@uscyberpatriot.org or calling 877-885-5716.

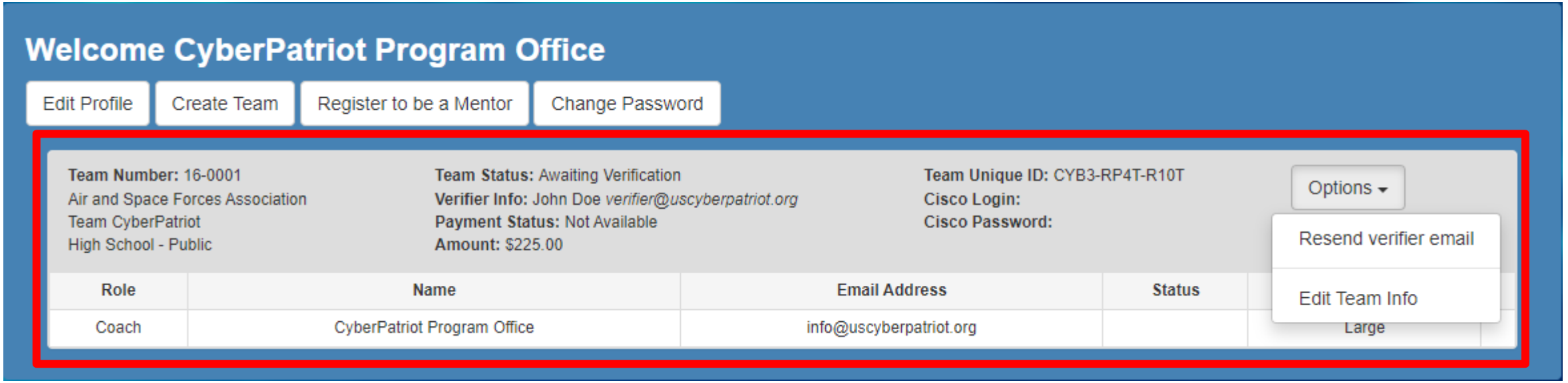
COACH / TEAM REGISTRATION

- Complete registration form and click ‘Submit’ to create team
  - Form must be completed for each individual team (up to 5)
- Team applications must be approved by designated verification official:
  - School based teams must be verified by school administrator.
  - Civil Air Patrol teams must be verified by squadron commander.
  - **Coaches cannot verify themselves**



COACH / TEAM REGISTRATION

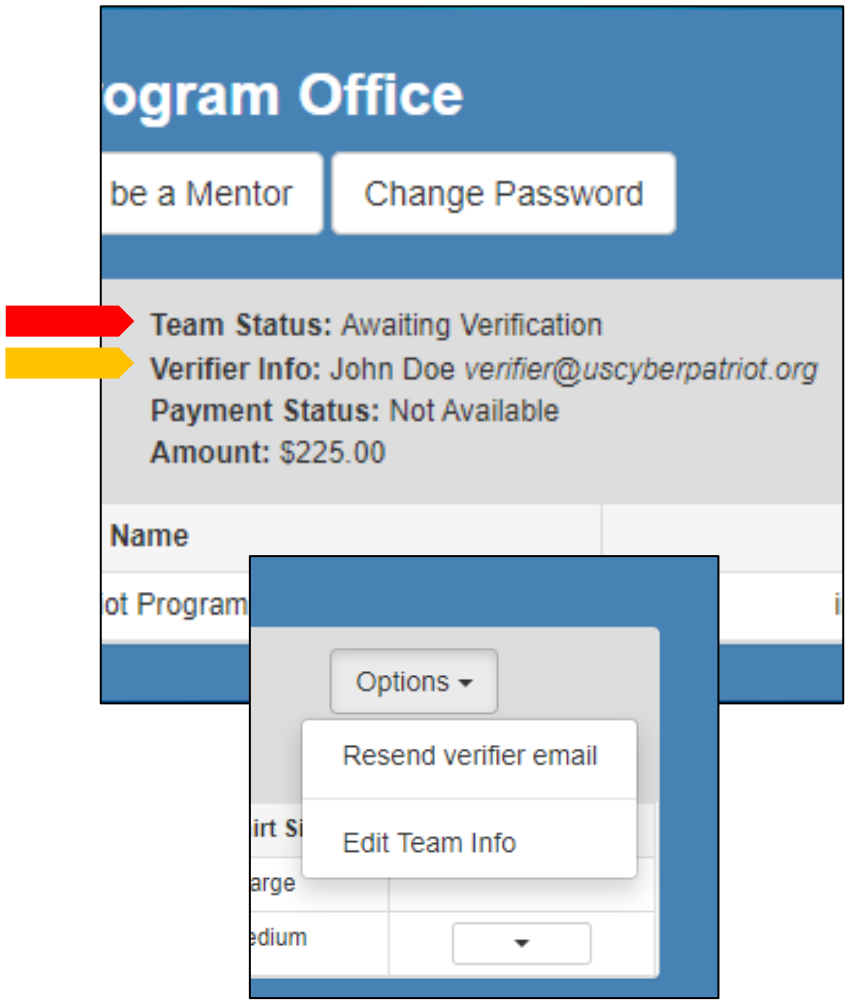
Once created, team information appears as such:



DASHBOARD - TEAM INFORMATION

- **Team Number:** Used to identify teams on scoring documents. Should always be provided when contacting CyberPatriot staff.
- **Organization Name:** Official team name. Used on award certificates. Can only be changed by contacting CyberPatriot staff.
- **Team Nickname:** Unofficial team name. Used to distinguish between multiple teams at one organization. Used on award certificates. Can be changed using ‘Edit Team’ option in Options drop-down menu.
- **Organization Type:** Selected during registration process. Determines competition division and registration fee rate. Can only be changed by contacting CyberPatriot staff.

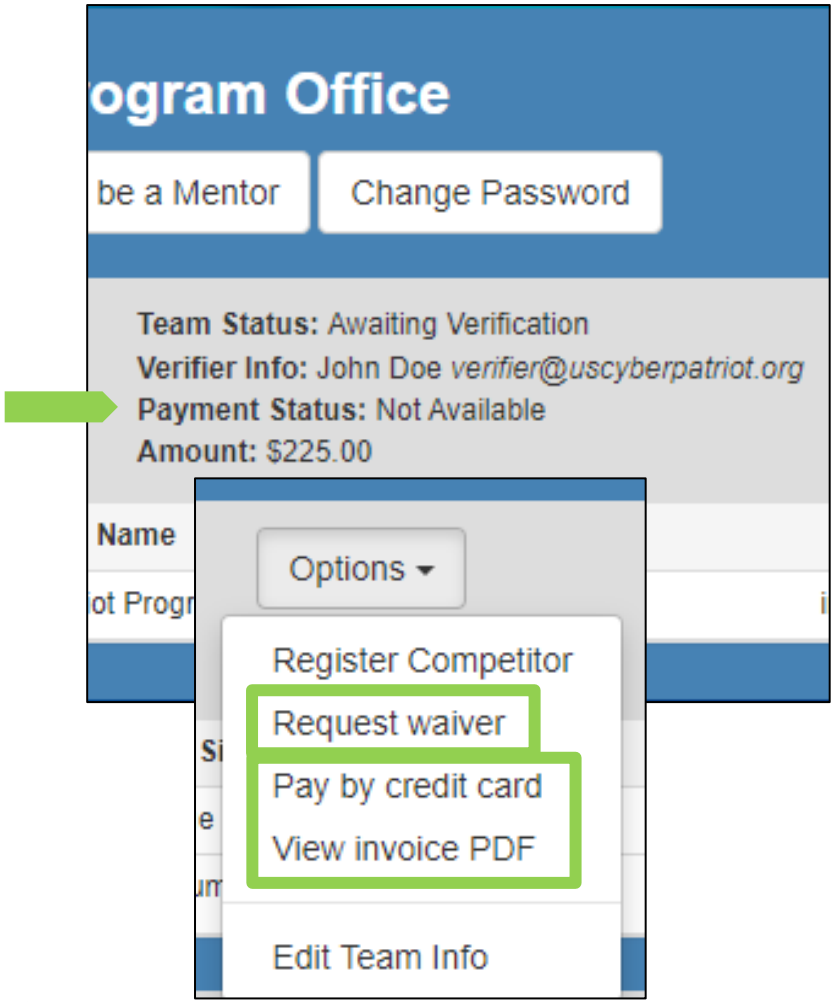
DASHBOARD – REGISTRATION STATUS



Team Status: Indicates how far along team is in approval process.

- ***Awaiting Verification:*** The verification official has not yet approved the team
  - **Verifier Info** can be changed from the 'Options → Edit Team Info' menu
  - Verifier email can be resent from the 'Options → Resend Verifier Email' menu
- ***Awaiting Approval:*** The CyberPatriot Program Office is doing a final team review.
- ***Approved:*** All steps have been completed and the team is ready for the next steps.

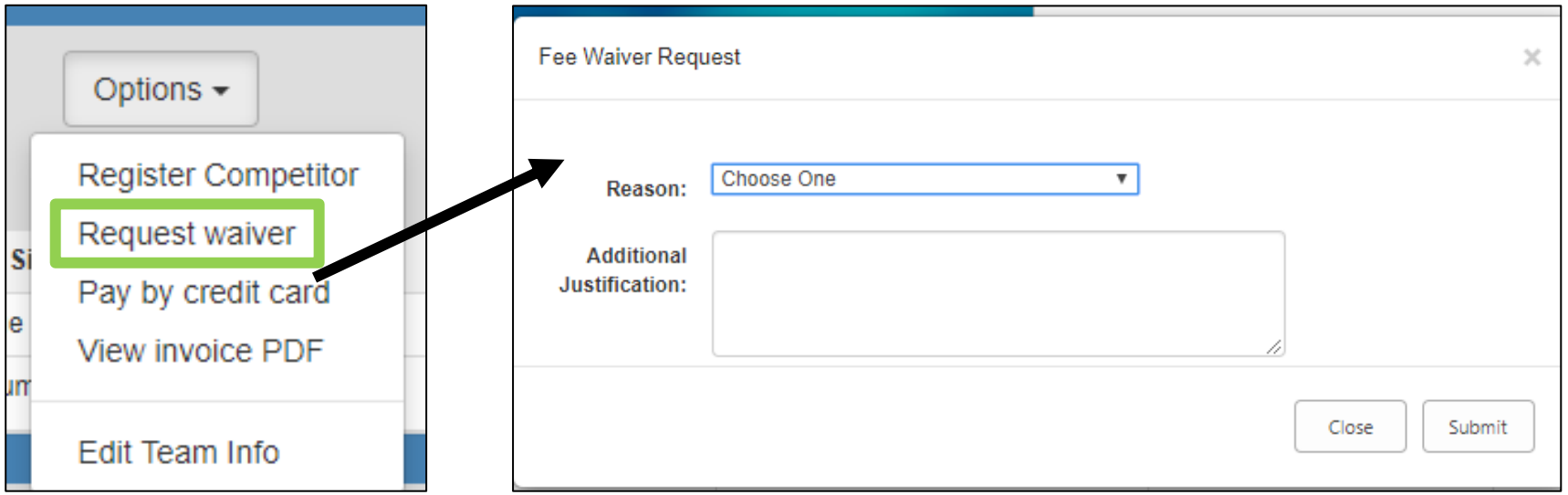
DASHBOARD – PAYMENT STATUS



Payment Status:

- ***Not Available:*** Team is not yet approved. Cannot submit payment.
- ***Awaiting Payment:*** Payment has not been received. Option to Pay by credit card, View invoice PDF or Request waiver available in 'Options' menu.
- ***Waiver Requested:*** A waiver request has been submitted but not yet approved.
- ***Waived:*** A fee waiver has been granted.

FEE WAIVER REQUESTS

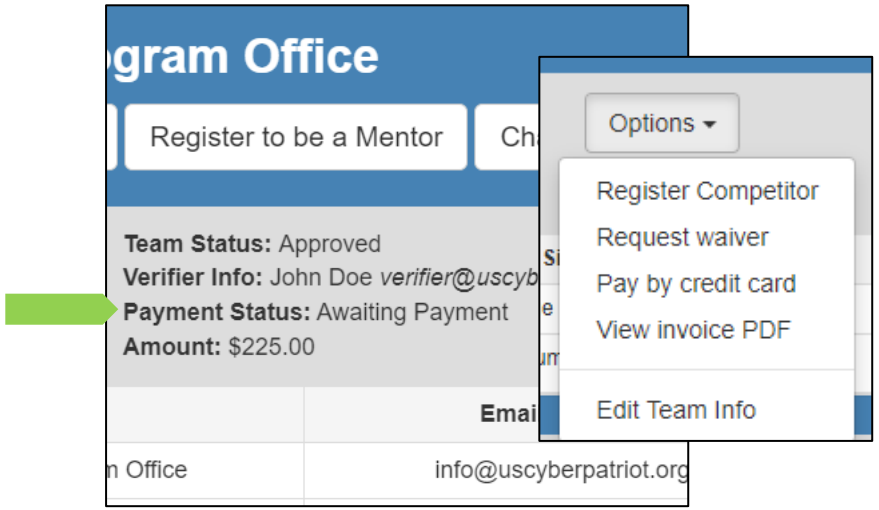


- Fee waiver requests are available for:
  - **Organizations with Title I status** or where there is insufficient funding.
    - Letter from a school administrator stating Title I status for current school year should be emailed to info@uscyberpatriot.org after request is submitted from the dashboard.
  - **All-girl teams**
    - Will not be approved until competitors are added to roster.

PAYMENT METHODS

Accepted payment methods:

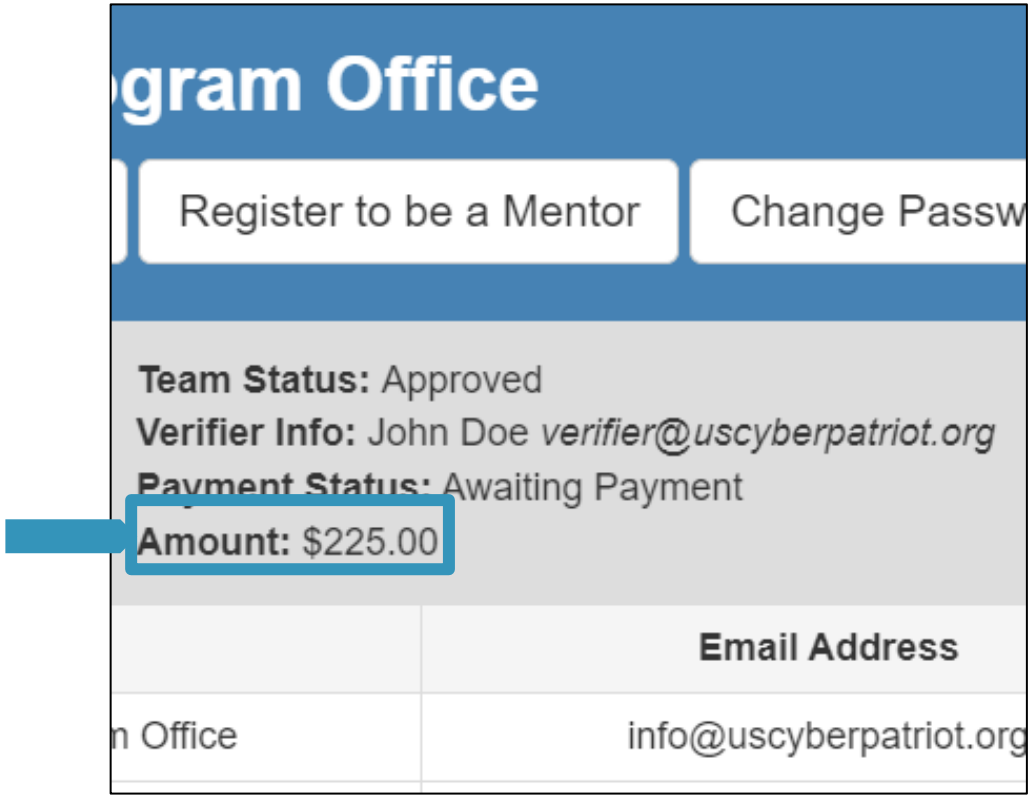
- **Credit card**: Select the ‘Pay by credit card’ and complete payment form.
- **Purchase Order**: Email copy of the PO to info@uscyberpatriot.org. Invoice will be updated with PO#



- **Check:** Mail check to Air & Space Forces Association with copy of invoice (address on invoice)

Once payment is received, a receipt will be available in the ‘Options’ menu

REGISTRATION FEES

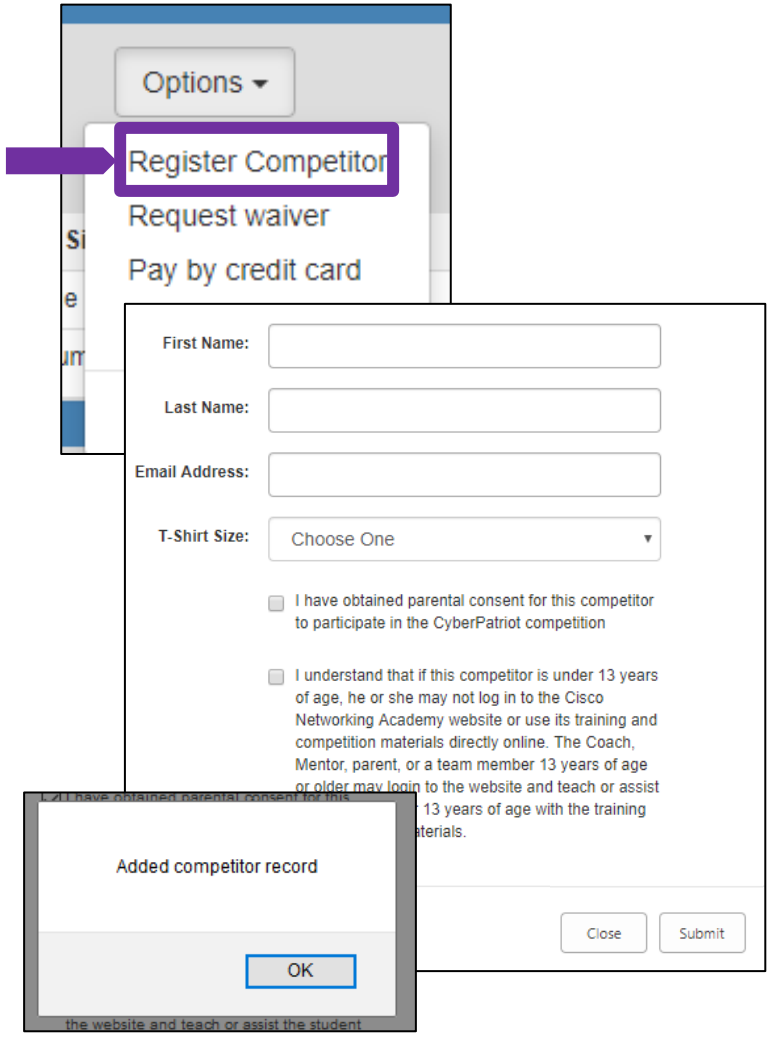


Registration Fee Amounts

- Open Division: $225
  - $180 if registered before July 1
- Middle School: $175
  - $140 if registered before July 1
- All Service Division & Middle School Civil Air Patrol: WAIVED

- Team fees (or waiver requests) are due by November 15, 2023

COMPETITOR REGISTRATION



‘Approved’ team status required before competitors can be registered

Competitor Registration:

- Select ‘Register Competitor’ from options menu
- Provide student’s first name, last name, email address, t-shirt size.
- Agree to parental approval and Cisco terms
- Click ‘Submit’

COMPETITOR REGISTRATION

Once a competitor's name is submitted, they will receive an email with a link to a competitor questionnaire.

- Completion of this questionnaire is strongly encouraged, but not required for participation

Dear Jane Smith,

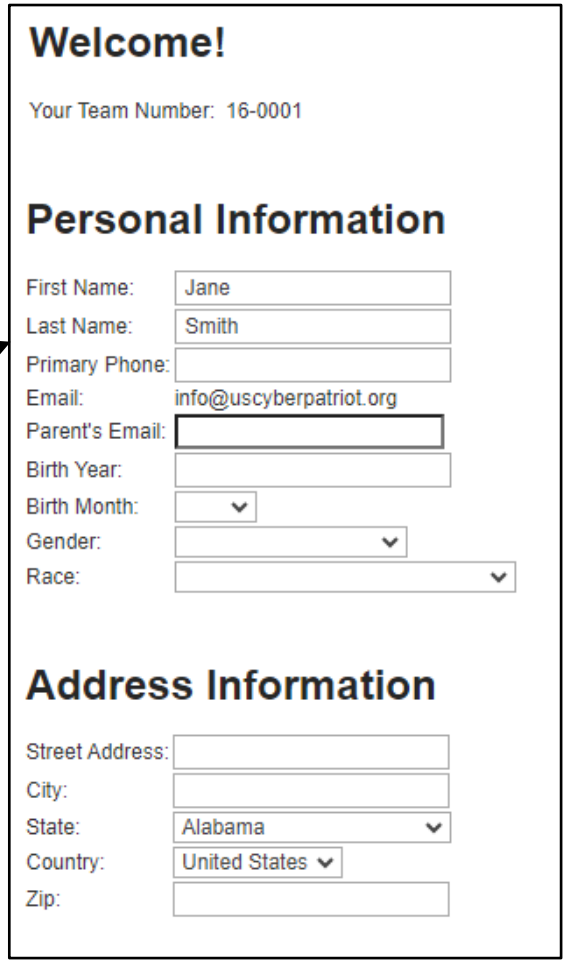
Coach Program Office recently added you to a CyberPatriot team.

Please visit the below link to complete your profile and fully register to participate with the team in this season of CyberPatriot.

Link: https://www.uscyberpatriot.org/Pages/competitor-questionnaire.aspx?CompetitorCode=61bf12b1-0e2f-45b9-9ef5-4ee01e3d9ddc

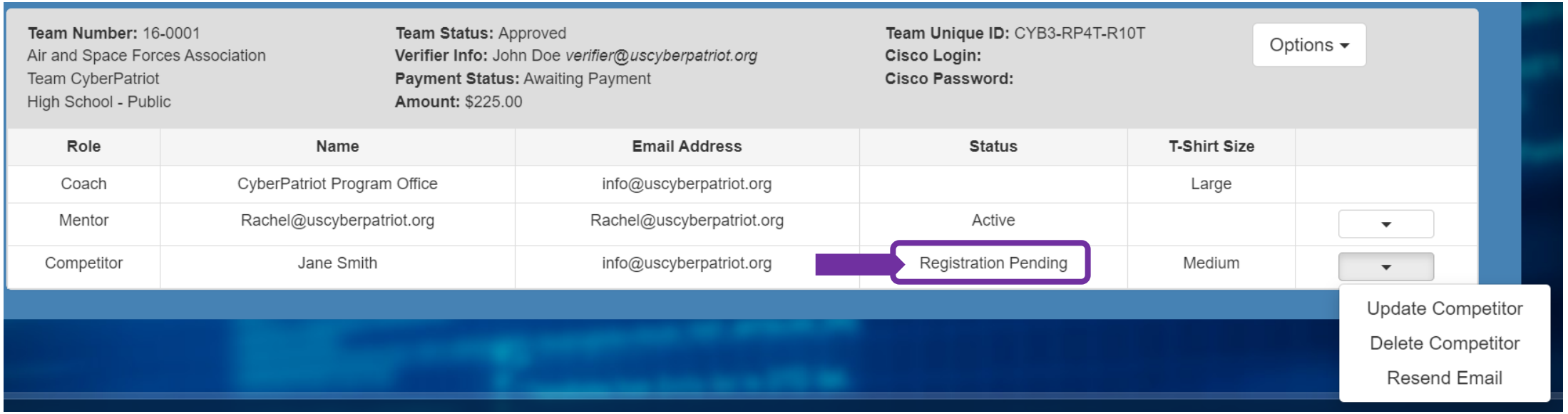
Sincerely,

The CyberPatriot Program Office
info@uscyberpatriot.org
877-885-5716



COMPETITOR REGISTRATION

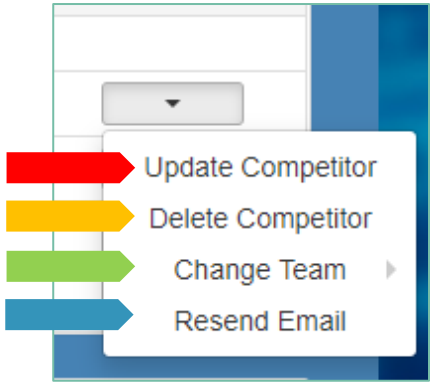
- **Competitor Status:**
  - *Registration Pending* – Competitor has not yet completed questionnaire
  - *Registered* – Competitor has submitted questionnaire



Rosters must be finalized by October 25, 2023

Changes to rosters (add/move competitors) cannot be made after this date.

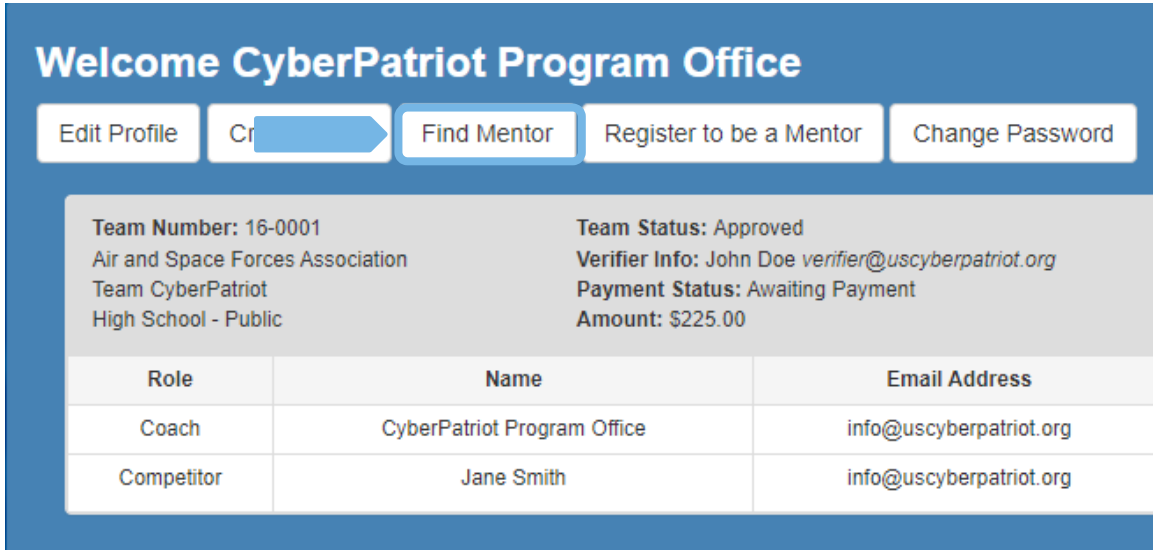
COMPETITOR REGISTRATION



Competitor Options

- **Update Competitor**: Make updates to email address or t-shirt size
- **Delete Competitor**: Remove competitor from roster
- **Change Team**: Move competitor to another team
  - Change team option will only appear if the coach has more than one approved team
  - System will not allow more than six (6) competitors on a team
  - Can only move between your own teams
- **Resend Email**: Resends link to competitor questionnaire.

FINDING A MENTOR



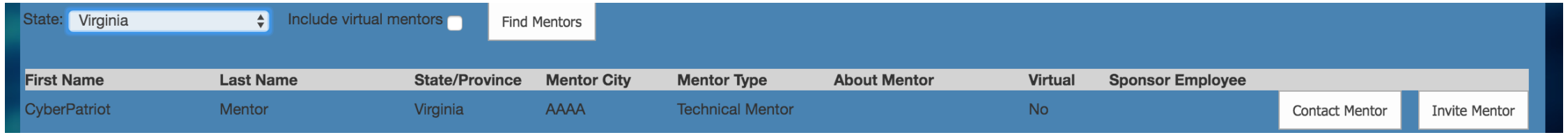
Find a Mentor

- Approved teams have the option to contact technical mentors and team assistants in their area should they need additional help with training
- Click 'Find Mentor' to search for volunteers.
  - There is no limit to the number of mentors/assistants helping a team

FINDING A MENTOR

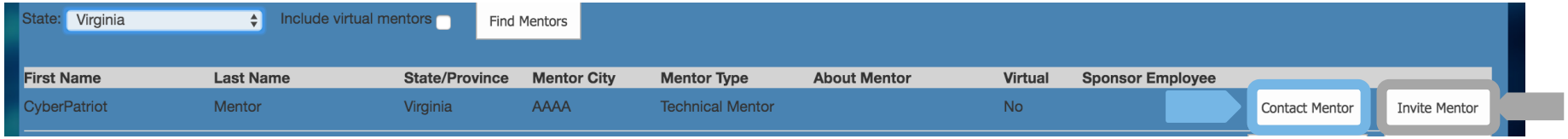
- Filter mentors/assistants by country and state
- Select check box if you wish to include those mentors who are willing to assist a team virtually from a remote location
- Click 'Find Mentors' to populate results

FINDING A MENTOR



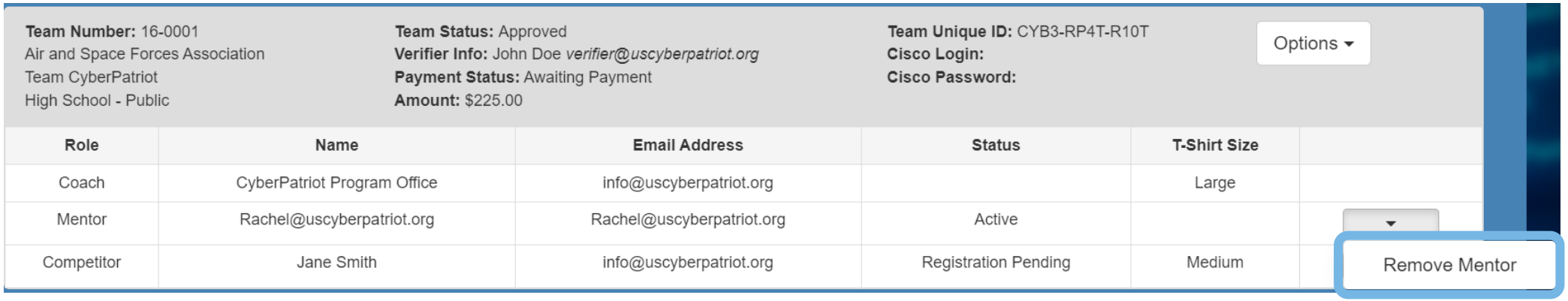
- Mentors are listed alphabetically by city.
- Two types of volunteers:
  - Technical Mentors have cybersecurity knowledge and want to help train teams
  - Team Assistants want to offer administrative support for the team.

FINDING A MENTOR



- To send a message to a mentor/assistant, click 'Contact Mentor'
  - An email with your message will be sent to the volunteer (your contact information included)
- To add a mentor/assistant to your team (after already communicating with them), click 'Invite Mentor'
  - An invitation appears on the mentor's dashboard

FINDING A MENTOR



- Upon sending an invitation, the mentor/assistant is added to your roster.
  - *Invited* (status): Mentor has received invitation but has not yet accepted.
  - *Active* (status): Mentor has accepted invitation and is officially paired with team
- Mentors/assistants can be added or removed at any point during the season.

The Air & Space Forces Association's

CYBERPATRIOT

The National Youth Cyber Education Program

TRAINING RESOURCES

TRAINING RESOURCES – ONLINE MODULES

Online Modules

- PDF modules that provide entry level explanation of skills needed for competition
- Recommended starting point for training
- Available to coaches, technical mentors, and team assistants on Volunteer Dashboard

Cisco Networking Academy

- Cisco NetAcad accounts and course access provided to registered coaches, mentors, and competitors
- Cisco self-paced courses available to anyone.

Available Year-Round

TRAINING RESOURCES

Non-Competition Rounds

Round	Dates	Purpose
Exhibition Rounds	Round 1: May 11– June 13 Round 2: July 20 – August 22	Demonstrate to potential coaches, mentors, and competitors what the competition is like.
Training Round	September 8 – October 4	Introduction to CyberPatriot Answer keys included = list of the vulnerabilities and detailed instructions on how/why to fix them Typically include three (3) images
Sneak Peak	1 day event in September	Test of new competition software
Practice Round	October 5 – 15	Re-release of training round images to allow more time for teams to train. Introduces teams to new alarms or warnings being added for the season

TRAINING RESOURCES – CYBERPATRIOT DEMO

Interactive Demo

- Purpose is to demonstrate how the CyberPatriot competition works without opening an image.
- Hands-on demonstration of a simulated CyberPatriot image (Size: 50 MB).
- Created for guided presentations at meetings, conferences, or classrooms.
- Good competition primer for new Coaches, Mentors, and Competitors.
- Never expires.
- Users may print a certificate when finished.
- Not a "*fire and forget*" resource. Inexperienced people will have questions.
- Do not mass email to students.

To order the Demo download (free of charge), you must complete the Demonstration Software Order Form available at:
https://www.uscyberpatriot.org/Pages/Announcements/Demo-Software.aspx

The Demo download and setup instructions are included in the Quick Start Guide, which can be accessed once the order form is submitted.

The Air & Space Forces Association's

CYBERPATRIOT

The National Youth Cyber Education Program

COMPETITION ROUNDS

(SCORED)

COMPETITION ROUND PREPARATION

- Download email sent Monday prior to competition.
  - Software download links and instructions
  - Image download links and instructions
  - Cisco Packet Tracer information
  - Other information specific to the round
- StartEx (“Start Exercise”) email sent at start of round

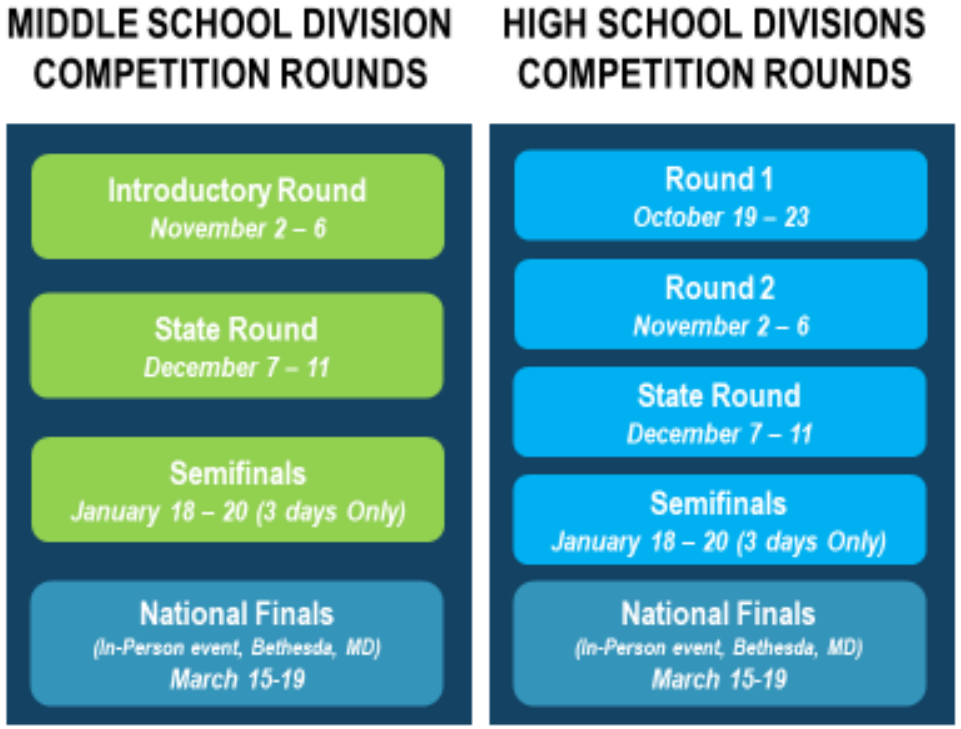
  (Thursday, 9:00 AM ET)

COMPETITION ROUND PREPARATION

- Competition Window Schedule:
  - Thursday 9:00 AM – 10:00 PM ET
  - Friday 9:00 AM – 11:59 PM ET
  - Saturday 8:00 AM – 11:59 PM ET
  - Sunday 10:00 AM – 6:00 PM ET
  - Monday 9:00 AM – 10:00 PM ET

COMPETITION ROUND SCHEDULE

- New in CP-XVI (2023-24) the Middle School Division and the High School Divisions (Open and All Service Divisions) will have different competition schedules.

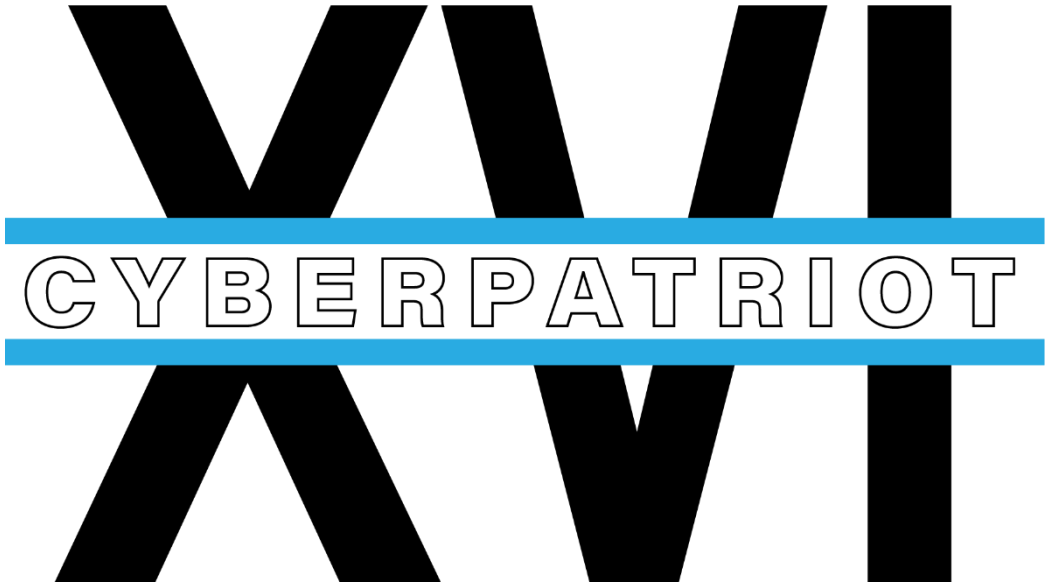


- The Middle School Division will have three rounds of competition and have a later start
  - Allow more time for Middle School teams to form and train

COMPETITION ROUNDS

HIGH SCHOOL DIVISIONS

Open Division and All Service Division



COMPETITION ROUNDS – HIGH SCHOOL DIVISIONS

Round	Date	Eligibility	Number of Images	Cisco
Round 1	October 19 – 23	All approved teams	Two (2) images	Cisco Quiz and Packet Tracer
Round 2	November 2 – 6	All approved teams	Three (3) images	Cisco Quiz and Packet Tracer

SKILL TIERS - HIGH SCHOOL DIVISIONS

Following Round 2, Open and All Service teams are divided into tiers specific to their skill level. Tiers are determined by cumulative Round 1 and Round 2 scores. Teams compete at their designated skill level for the remainder of the season.

Platinum*

Top 30% of teams

Gold

Middle 40% of teams

Silver

Remaining 30% of teams

***Only Platinum tier teams can qualify for National Finals Competition

Notes:

- The percentages of All Service Division teams are based on their service category.

COMPETITION ROUNDS – HIGH SCHOOL DIVISIONS

Round	Date	Eligibility	Number of Images	Cisco
State Round Stand alone round – scores from prior rounds do not count toward advancement or awards	December 7 – 11	All approved teams	Three (3) images	Cisco Quiz and Packet Tracer for all Tiers

STATE ROUND AWARDS

State Awards (1st, 2nd, and 3rd Places)

- Only State Round scores are considered for State Awards
- Open and All Service Division State Awards are earned by tier and then score in this order:

  - Top three (3) scoring Platinum Tier teams in each state or At Large region.
  - If there are fewer than 3 Platinum Tier teams in a state, then the top Gold Tier teams.
  - If there are fewer than 3 Platinum Tier and Gold Tier teams, then the top Silver Tier teams

Tier Awards (1st, 2nd, and 3rd Places)

- The top 3 scoring Open and All Service Division teams in each tier in each state earn tier awards.

ADVANCEMENT TO SEMIFINALS

- Generally, the top 25% of Open and All Service Division teams advance to the Semifinals based on State Round scores only.
- Open Division
  - Teams with top 25% State Round scores in their tier advance.
  - If the top scoring team in a state in their tier does not advance as part of the top 25%, then that team will advance as a State Wild Card.
- All Service Division
  - Teams with top 25% State Round scores in their tier advance.
  - The top six scoring teams in each service category advance.
  - If the top six scoring teams in a service category do not advance as part of the top 25%, then they will advance as Wild Cards.

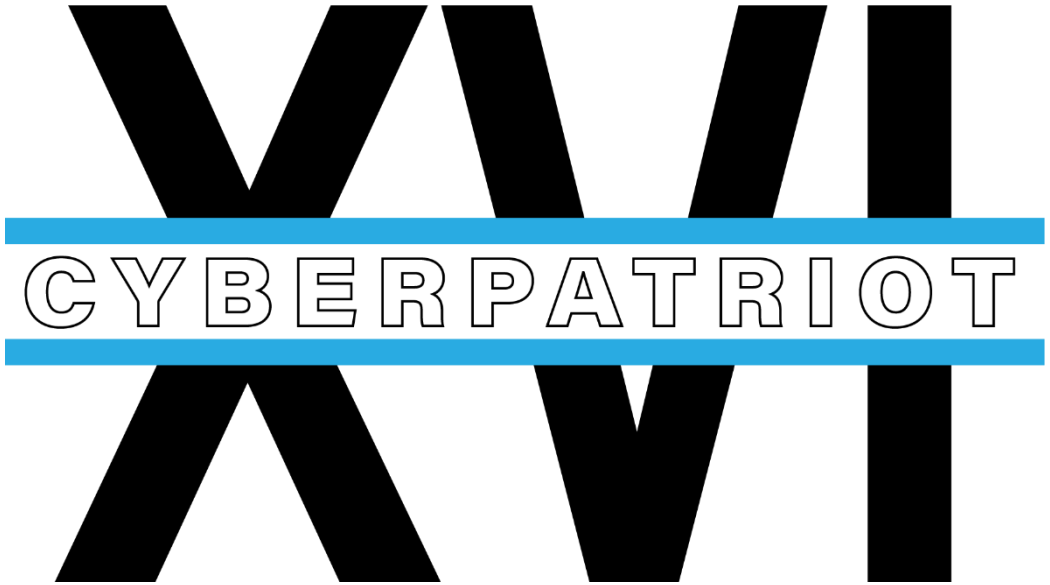
COMPETITION ROUNDS – HIGH SCHOOL DIVISIONS

Round	Date	Eligibility	Number of Images	Cisco
Semifinal Round	January 18 – 20 ***Three days only***	Qualifying teams only	Two (2), three (3), or four (4) images	Cisco Quiz and Packet Tracer for all Tiers

- All Tiers will face the Boeing Cyber-Physical Systems Challenge
- Platinum Tier teams will also have the CyberPatriot Web-Based Challenge.

COMPETITION ROUNDS

MIDDLE SCHOOL DIVIISON



COMPETITION ROUNDS – MIDDLE SCHOOL DIVISION

Round	Date	Eligibility	Number of Images	Cisco
Introductory Round	November 2 – 6	All approved teams	Two (2) images	Cisco Quiz and Packet Tracer for all teams
State Round	December 7 – 11	All approved teams	Three (3) images	Cisco Quiz and Packet Tracer for all teams

STATE ROUND AWARDS

State Awards (1st, 2nd, and 3rd Places)

- Introductory Round and State Round scores are considered for State Awards
- Middle School State Awards are earned by the 3 top scoring teams in each state and At Large Region

Advancement to Semifinals

- Top 60% of Teams advance based on cumulative scores from Introductory and State Round

COMPETITION ROUNDS – MIDDLE SCHOOL DIVISION

Round	Date	Eligibility	Number of Images	Cisco
Semifinal Round	January 18 – 20 ***Three days only***	Qualifying teams only	Two (2) images	Cisco Quiz and Packet Tracer for all teams

ADVANCEMENT TO NATIONAL FINALS

- Platinum tier teams only.
- Advancement based on Semifinal Round scores.
  - Open Division advancement limited to two (2) teams per school, organization or coach.
  - All Service and Middle School Division advancement limited to one (1) team per school, organization or coach.

Open Division

Top12 teams advance

All Service Division

Top 2 teams per category plus one wildcard team advance

Categories = Air Force/Space Force, Army, Navy/Coast Guard, Marine Corps, CAP, NSCC

Middle School Division

Top 3 teams advance

NATIONAL FINALS COMPETITION

General Information

- **Date:** March 15 – 19
- **Location:** Bethesda North Marriott Hotel & Conference Center (Rockville, MD)
- All-expenses paid for National Finalist Teams
  - Expenses covered for one (1) coach, one (1) chaperone, and up to six (6) registered competitors
- Scholarship funds are on the line for top performing teams in the high school divisions

NATIONAL FINALS COMPETITION

Tentative schedule for CP-XVI National Finals

DATE	ACTIVITY
Friday March 15	Travel Day – Teams Arrive
Saturday March 16	• Competition Orientation/Familiarization • “Career Day” event with sponsor representatives • Competitors’ Dinner
Sunday March 17	Main Competition Day • Network Security Master Challenge • Cisco NetAcad Challenge • Other challenges TBD
Monday March 18	Awards Banquet
Tuesday March 19	Travel Day – Teams Depart

The Air & Space Forces Association's

CYBERPATRIOT

The National Youth Cyber Education Program

TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATIONS

Terms to Know

- **Virtual Machine (VM) / Image:** A virtual machine (image) is a virtual representation of an operating system used for the competition. During rounds of competition, teams are given several images of various operating systems. For example, they may receive a Windows 10 image and an Ubuntu 20 image in the first round of competition.
- **Host Machine:** The physical computer that the teams are working on during the competition.
- **Unique Identifier (UID):** A twelve-character string of letters and/or numbers that uniquely identifies an individual CyberPatriot team. Teams must input their UID into competition images in order to be properly scored.
- **Checksum:** A small string of numbers and letters derived from digital data for the purpose of detecting errors that may have been incurred during the download process. Checksums that do not match indicate an error in the downloaded file.
- **Whitelist:** A list of trusted entities that can include e-mail addresses, domain names, or IP addresses that have been granted access to a network or system by an IT administrator.

TECHNICAL SPECIFICATIONS – HARDWARE

Teams are required to have 64-bit host computers and operating systems

Computers made before 2011 cannot run competition software

Processors (made in 2011 or later):

- Intel: 64-bit i3 processor of the generation “Sandy Bridge” or better
- AMD: 64-bit processor of the generation “Bulldozer” or better

Virtual Extensions: Virtualization technology/extensions (e.g., VT-x, Vx) must be ENABLED in BIOS

RAM: 8 GB of RAM (using only 4 GB may cause performance issues)

Disk Space: 40 GB of free disk space

Display: XGA (1280x768) or higher display. 1280x1024 recommended

TECHNICAL SPECIFICATIONS – SOFTWARE

Operating Systems

- 64-bit Windows 10 or later (OS must run VMWare Workstation Player 17.0.2)
- Mac (Apple) and Linux operating systems may be used at team's **own risk** (issues resulting from their use are not grounds for appeal or special consideration)
- Teams with non-Windows operating systems should have at least one Windows computer that meets technical specifications for the competition

WinMD5

- Used for verifying the checksum of the images to ensure that they have been fully downloaded without any errors

7-Zip

- Used for unzipping the images after they have been downloaded

TECHNICAL SPECIFICATIONS – SOFTWARE

VMware Workstation Player for Windows

- Used to play the images after they have been unzipped
- The official version of VMware Workstation Player for CP-XVI will be **17.0.2**
- Earlier versions of VMware Player are available, but issues stemming from the use of these versions are not grounds for appeal

Cisco Packet Tracer

- Used for the Cisco NetAcad Challenge
- Downloaded from a user account at netacad.com
- The official version of Cisco Packet Tracer for CP-XVI will be **8.2.1**

TECHNICAL SPECIFICATIONS – NETWORK REQUIREMENTS

- CyberPatriot requires a DSL or faster network connection
- Most common issue encountered by teams during competition is network traffic blocked by a school firewall, filter, or proxy server.
- All teams will need **OUTBOUND** access to HTTP on **Port 80** and HTTPS on **Port 443**
- Website access requirements above should be whitelisted if they cannot be accessed through school or organizational computers (see next slide)
- Connection test software available to test if a connection to the scoring engine can be established. Allows you to troubleshoot connection issues prior to a round.

Work with your organization's IT staff to ensure all hardware, software, networking, and website access requirements are met

TECHNICAL SPECIFICATIONS – WEBSITE ACCESS

Teams will need to access the following websites:

Website	Reason for Access
www.uscyberpatriot.org	Competition Dashboard, Competition Info
www.Microsoft.com	Information on Windows OS and updates
www.vmware.com	VMware software installation
www.7-zip.com	7-zip compression software installation
www.canonical.com	Ubuntu software updates
www.ubuntu.com	Ubuntu information
http://winmd5.com/integrity	MD5 checksum test
www.netacad.com	Cisco Networking Academy access for Cisco challenges and training
S3.amazonaws.com	Links to competition information and image downloads
Search Engines (Google, etc.)	For research and updates

The Air & Space Forces Association's

CYBERPATRIOT

The National Youth Cyber Education Program

DOWNLOADING & OPENING AN IMAGE

DOWNLOAD INSTRUCTIONS

- Download instructions contain the links to download images

  Example: https://amazonaws.com/C/images/ExRd_W10.zip
- Download instructions for non-competition/practice rounds are emailed to Coaches at 5:00 PM ET the day the event begins.
- Download instructions for scored competition rounds are sent the Monday before the competition round begins
  - Download instructions are sent to coaches only. Mentors will not receive the email.
  - A **Coach Alternate** may be designated by the verification official for a competition round or non-competition event. Email form is in the CyberPatriot Rules Book.

Monday	Tuesday	Wednesday	Thursday	Friday
Download Instructions sent			Start of scored round (Extraction Password Sent)	

DOWNLOAD INSTRUCTIONS EMAIL

Round 1 Image Download Instructions and Challenge Materials

for the

Network Security Challenge (images)

Cisco NetAcad Challenge

Note: There are no hyperlinks in this email. Please copy and paste URLs into your browser.

While participating in the round, please follow CDC, state, and local guidelines to ensure the health and safety of your competitors. This is the highest priority.

Welcome to CP-XV Round 1!
October 14 - 16 and October 20 - 22, 2022

This season or
Teams may ch
Round 1 and d
MAY COMPETE
WINDOW. Ther
any Emergency

The Download
image opening
teams.

SOFTWARE INSTALLATION AND IMAGE DOWNLOADS

Before downloading the images, make sure you have installed all the necessary software and reviewed the image download instructions. Once reviewed, use the download link below to download this round's images.

DOWNLOAD INSTRUCTIONS

IMAGE INFORMATION

UNIQUE IDENTIFIER (UID)
(for all images)
Required to access the image. See the Coach's Dashboard for the team assigned UID.

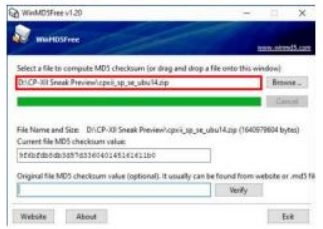
From the download instructions email, click the Download Instructions button to open the pdf with step-by-step instructions on how to download and open the virtual image.

Virtual Image Download Instructions

Step 1: Download the Virtual Machine (Image)

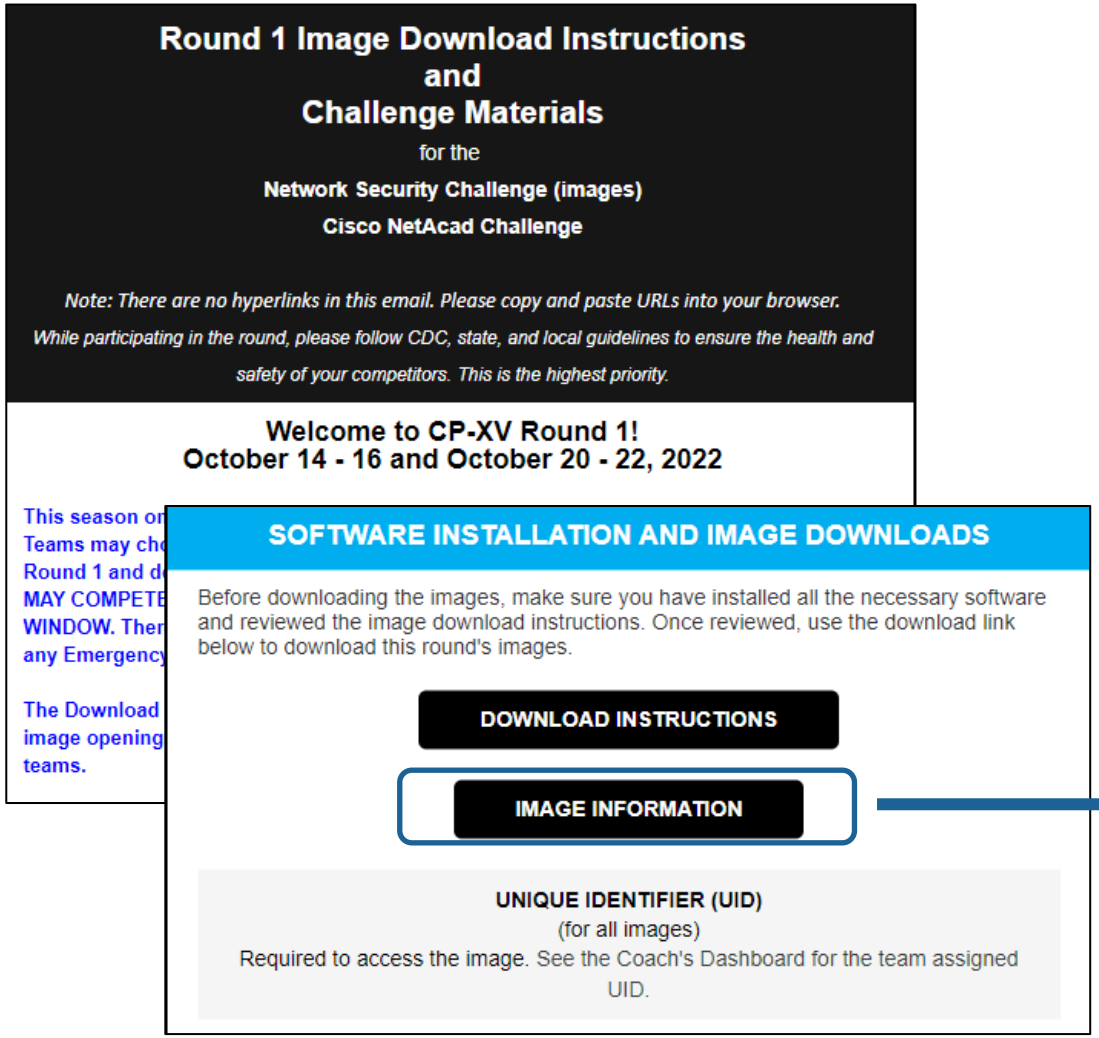
1. **Use the links provided** in your round specific email to download the images. Competition image download links are typically sent 5-7 days prior to the round start date.
   NOTE: The image files are large and may take several hours to download. It is recommended that you download the image file(s) as far in advance as possible.

Step 2: Verify the Checksum

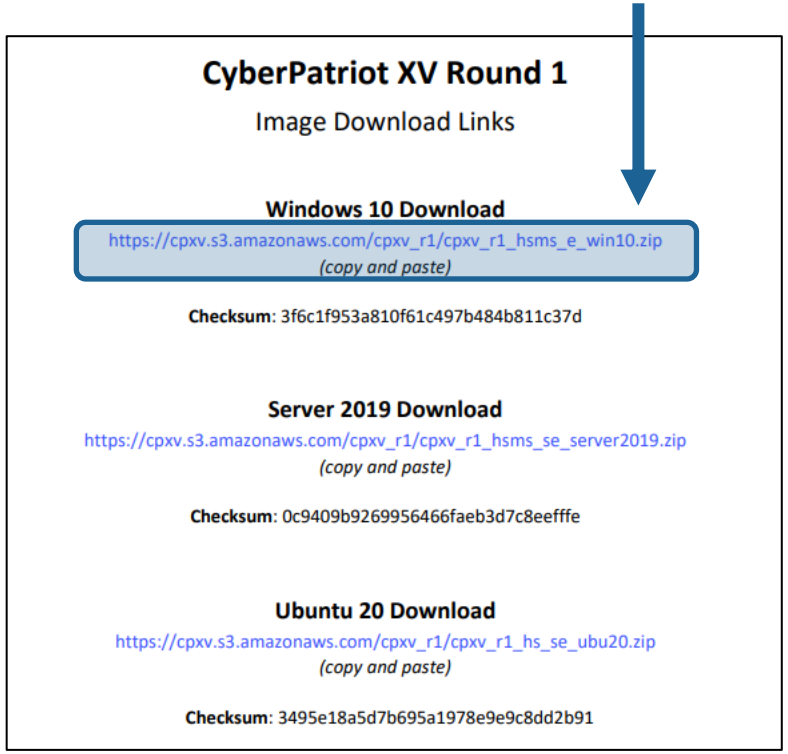


1. Open WinMD5 by double-clicking the application file.
2. Click "Browse" and select the .zip file you would like to verify the checksum of. (You should be selecting the zipped image file downloaded in the previous section.
3. The checksum calculation process will begin immediately. After the green loading bar is complete, the file's MD5 checksum will be displayed under "Current file MD5 checksum value:"

DOWNLOAD INSTRUCTIONS EMAIL

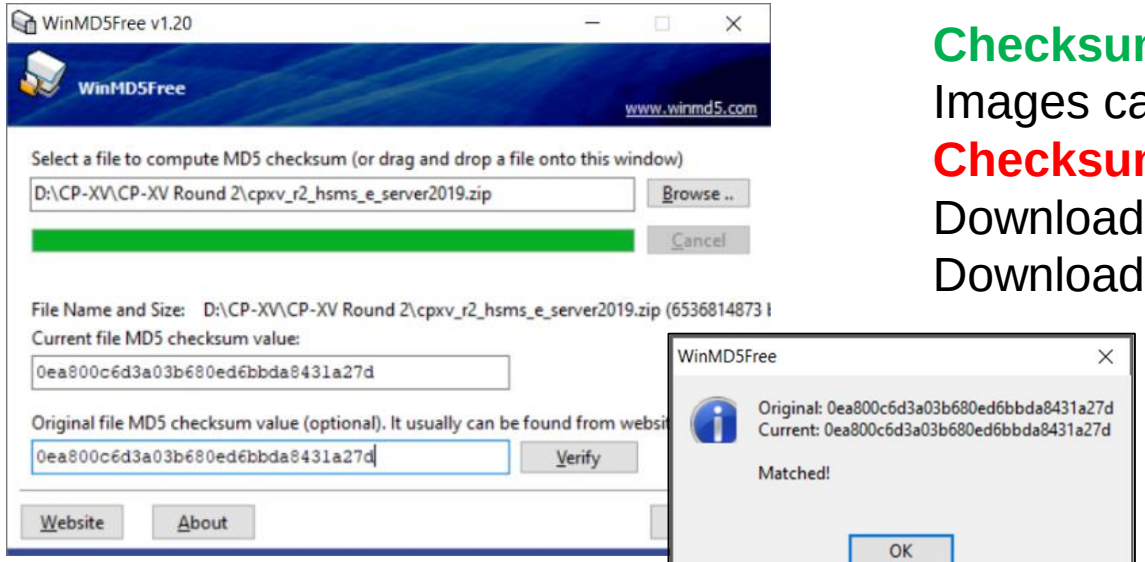


From the download instructions email, click the Image Information button to open the pdf with the image download links. Copy and paste link for the image into a web-browser URL bar to download.



CHECKSUM

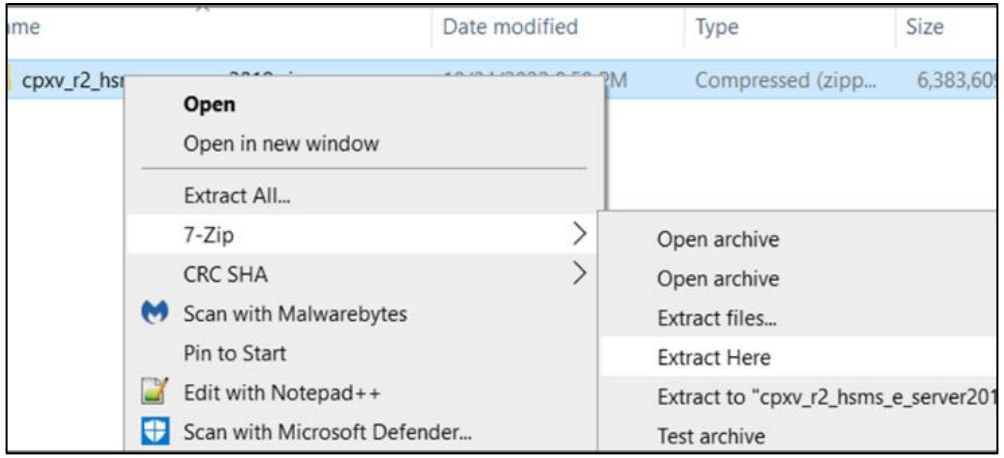
- After downloading image file, use WinMD5 to verify checksum
  - Open WinMD5
  - Drag and drop downloaded image zip file into WinMD5 window (or click ‘Browse’ to select the file)
  - Once WinMD5 has calculated the checksum of (zipped) downloaded file, copy and paste the checksum provided by the CyberPatriot Program Office into the lower text field.
  - Click “Verify.”



Checksums match: You’re all set!
Images can be unzipped/extracted.
Checksums do NOT match:
Downloaded file is corrupted.
Download file again

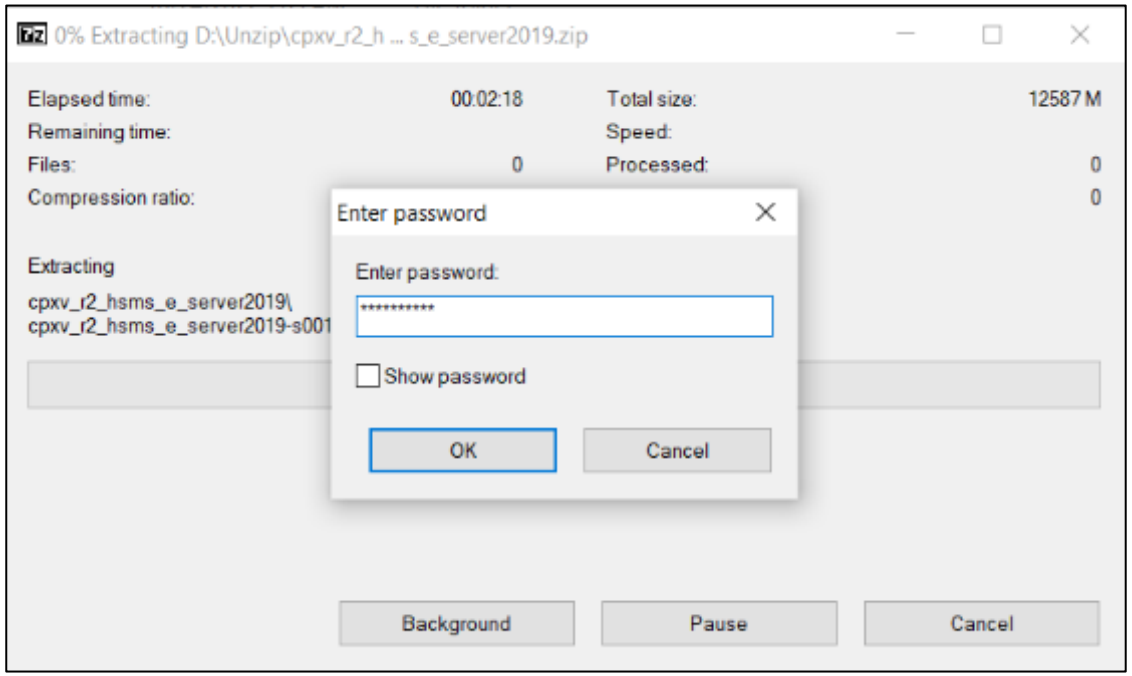
UNZIPPING/EXTRACTING IMAGES

- The extraction password is sent in the StartEx email. You will not be able to unzip the images until the start of the round.
- 7-Zip is the standard extraction software used by CyberPatriot
  - Right click downloaded zipped file
  - Select “7-Zip” then select “Extract Here”



UNZIPPING/EXTRACTING IMAGES

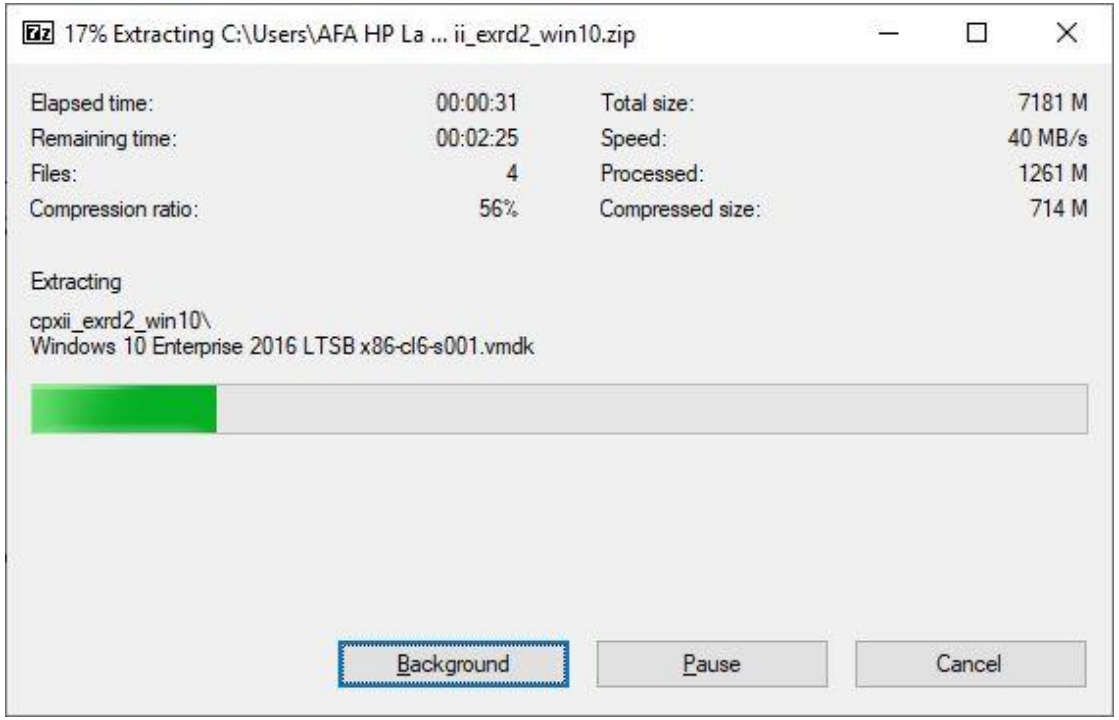
- Ener the extraction password exactly as provided in the StartEx email



Note: Extraction password is NOT the UID

UNZIPPING/EXTRACTING IMAGES

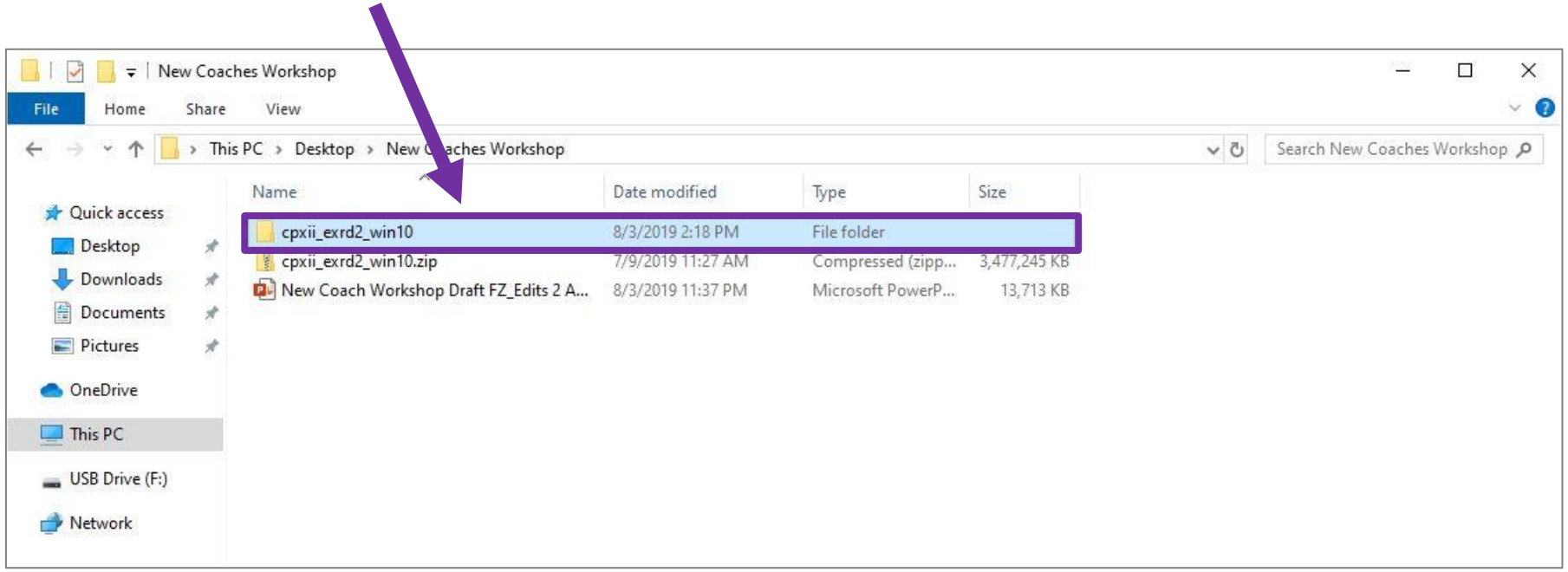
- This is a properly extracting file:



- Process should take a few minutes
  - If process only takes a few seconds, the password is incorrect

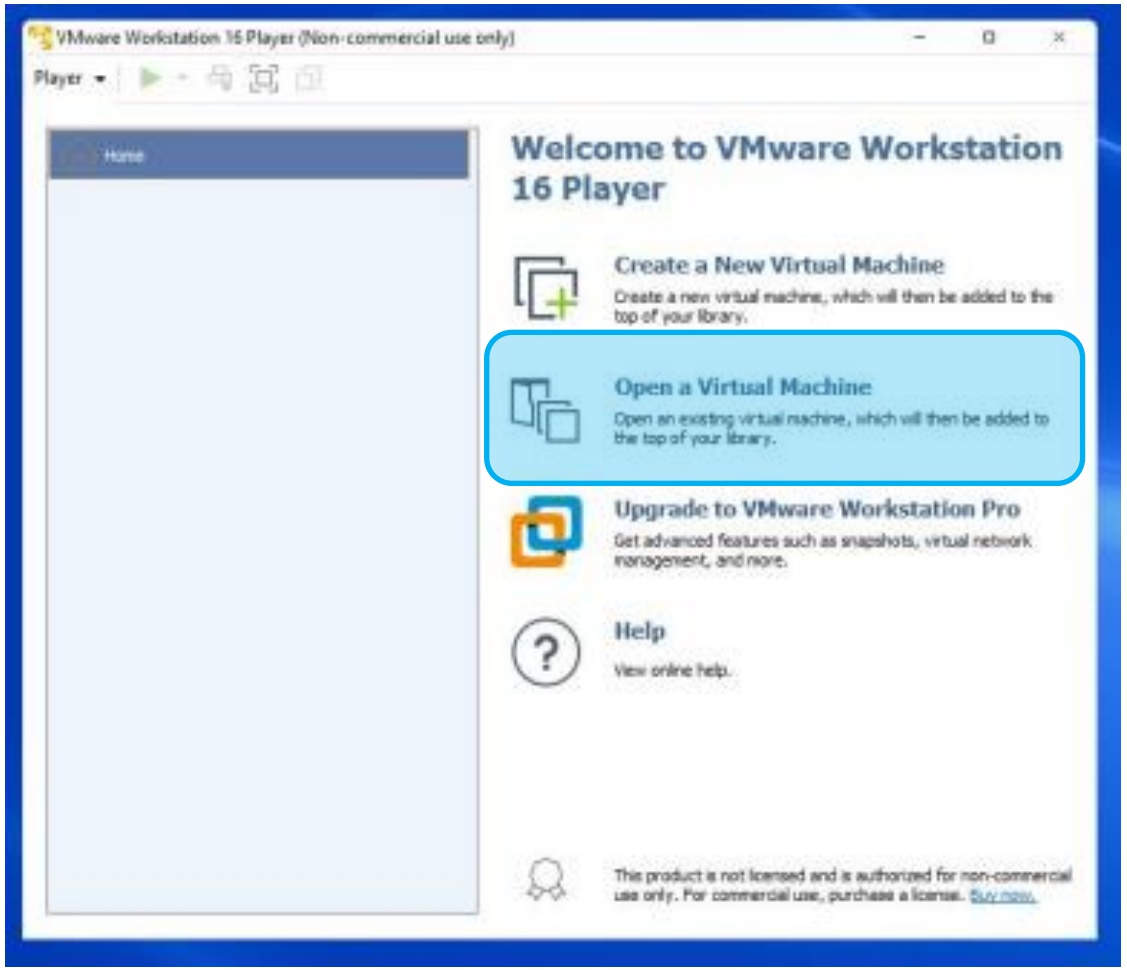
UNZIPPING/EXTRACTING IMAGES

- Unzipped file will appear in the selected location
  - Note that the unzipped/extracted file does **not** have a .zip extension
    (Common rookie mistake is to try to open zipped file. Recommend unzipping image file into a folder with a unique name such as a color so you can easily find the unzipped image.)



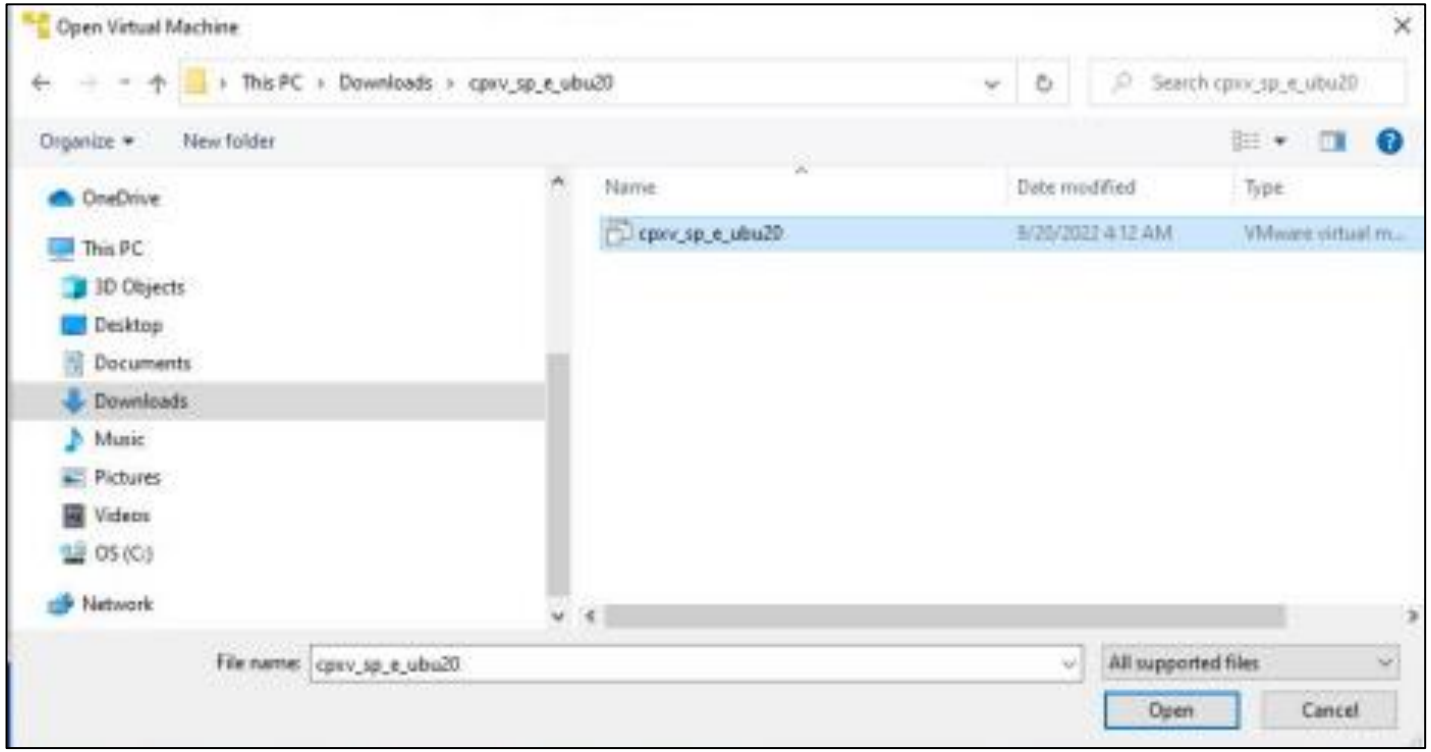
OPENING AN IMAGE

- VMware Workstation Player is the standard image player for CyberPatriot
  - To open image, click ‘Open a Virtual Machine’



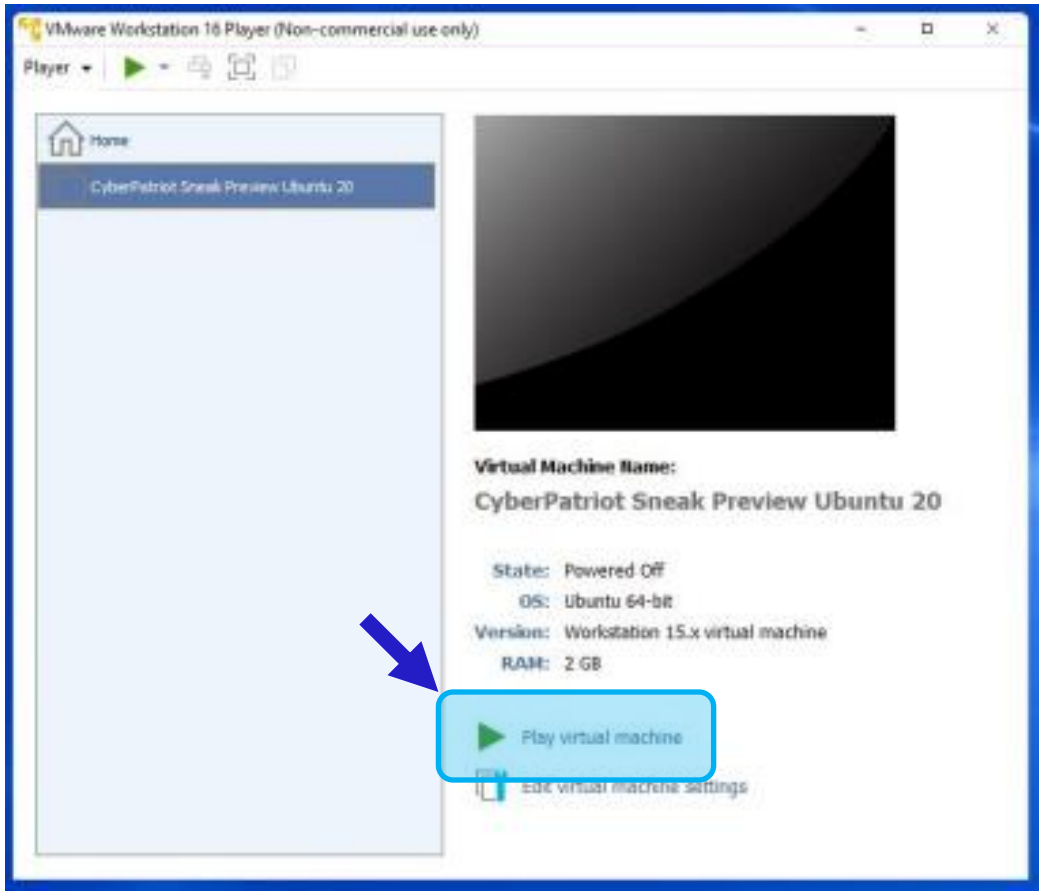
OPENING AN IMAGE

- Locate the image folder that you unzipped/extracted and select Open.
  - It will **not** have a .zip extension
- Select the VMware virtual machine image file and Select Open,



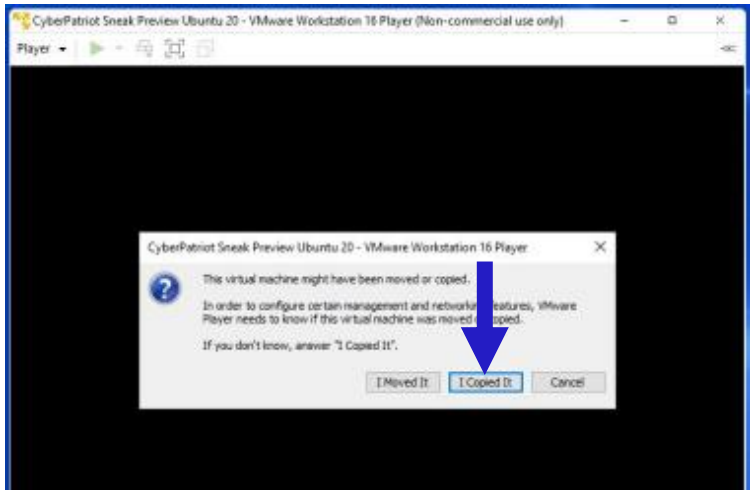
OPENING AN IMAGE

- Click ‘Play virtual machine’
  - **Note**: The competition time begins when Play virtual machine is clicked.

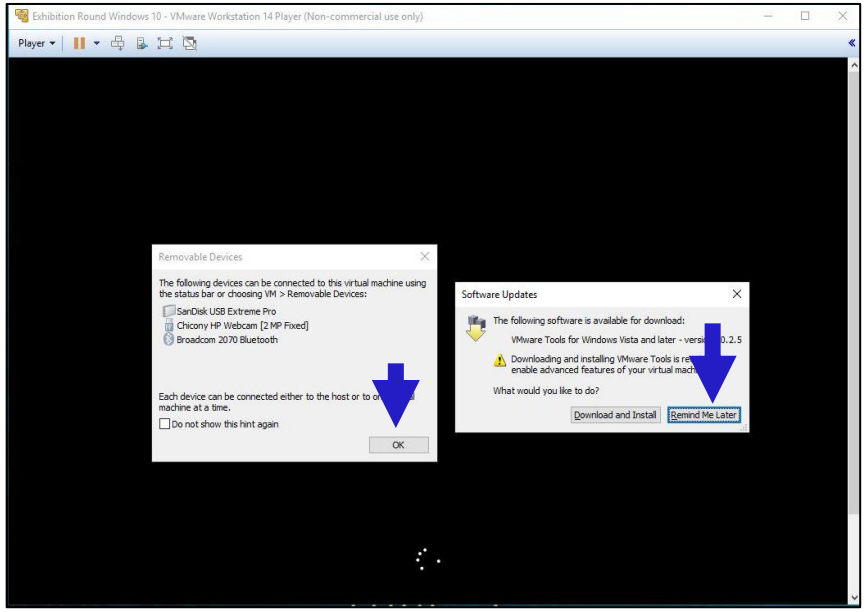


OPENING AN IMAGE

- If prompted Select “I Copied It” and the virtual machine will open.

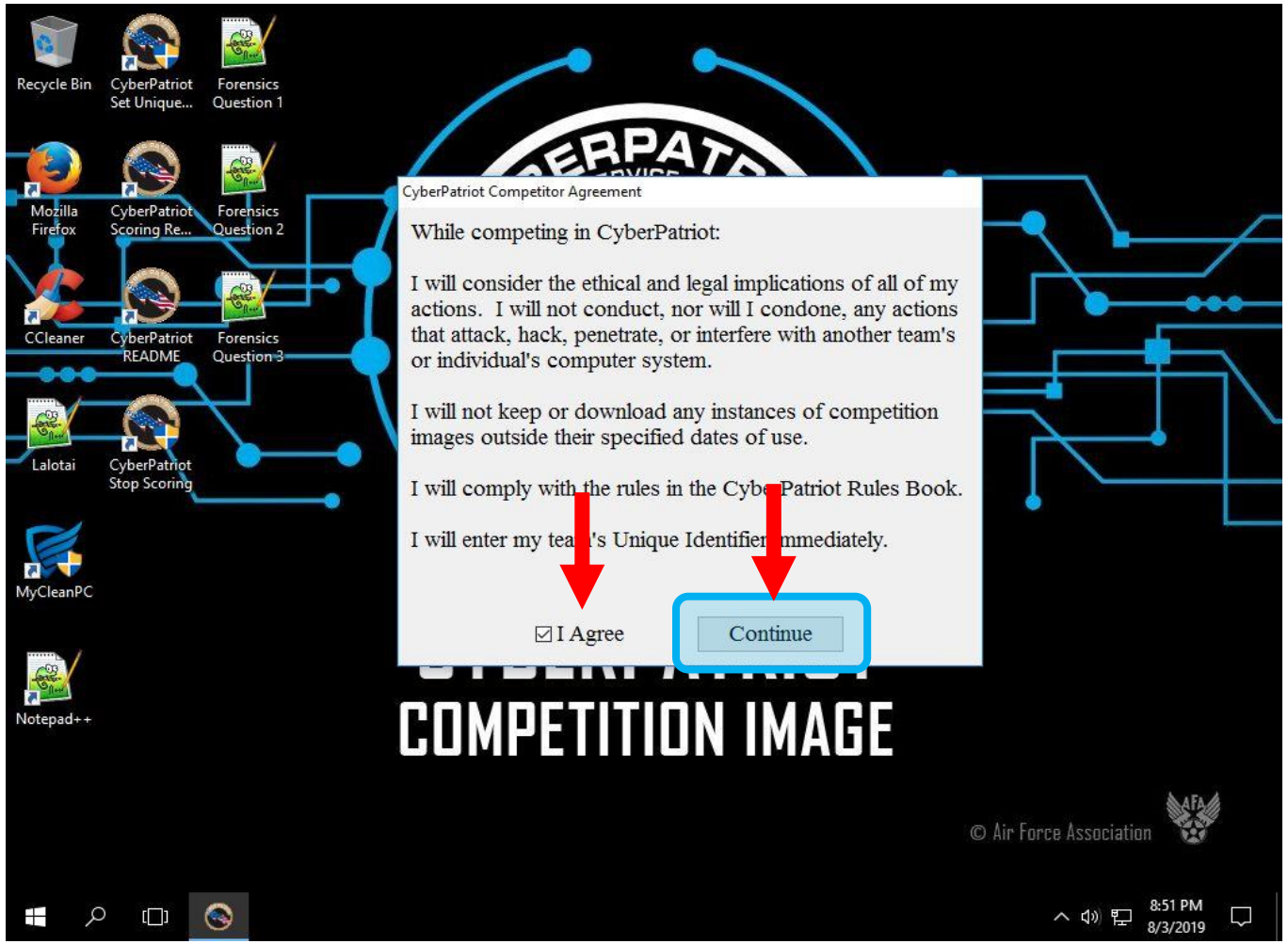


- If prompted with pop-ups regarding Removeable Devices and Software Updates appear, click ‘OK’ and ‘Remind Me Later’



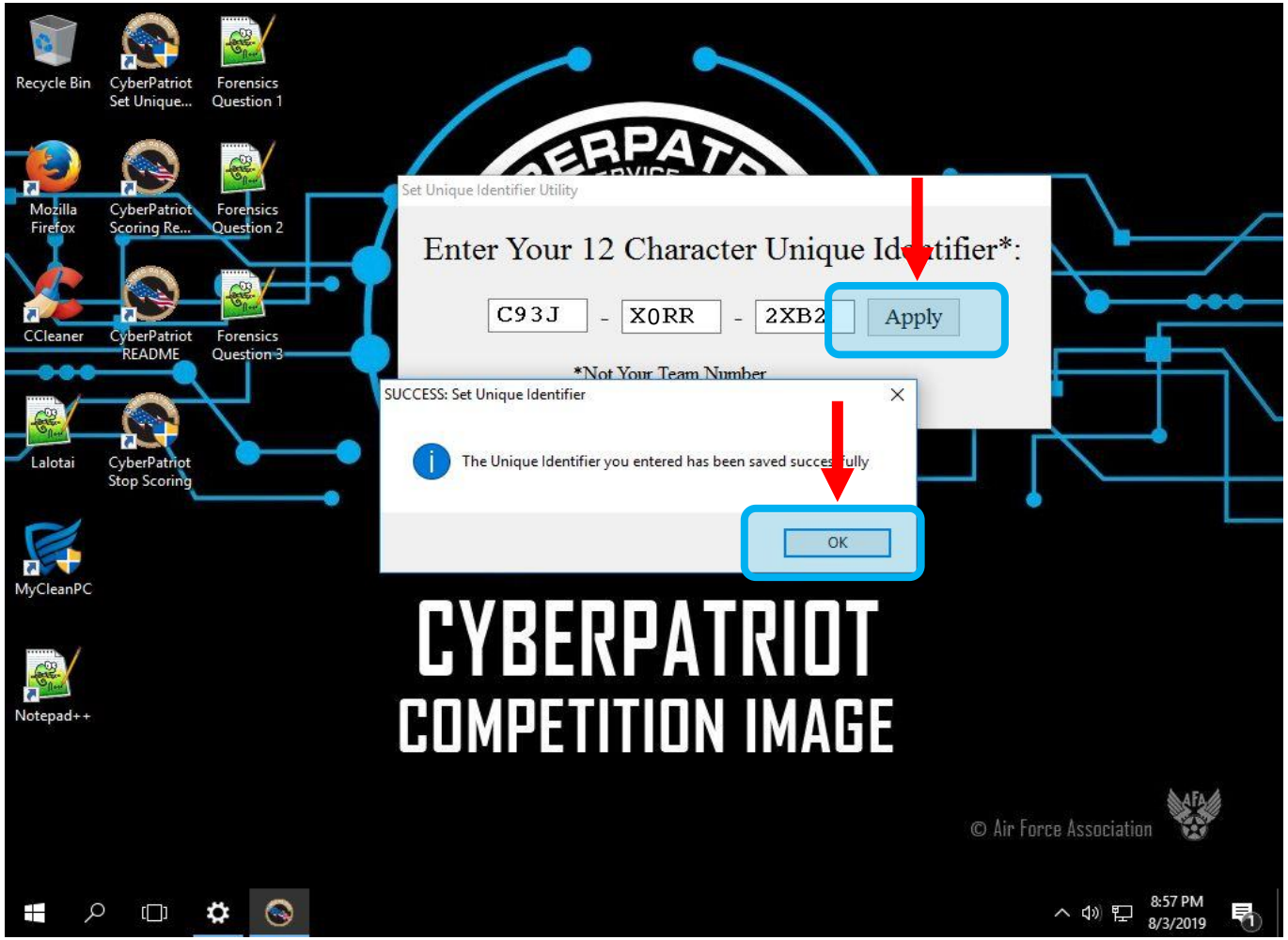
OPENING AN IMAGE

- Read the CyberPatriot Competitor Agreement
  - Check ‘I Agree’
  - Click ‘Continue’



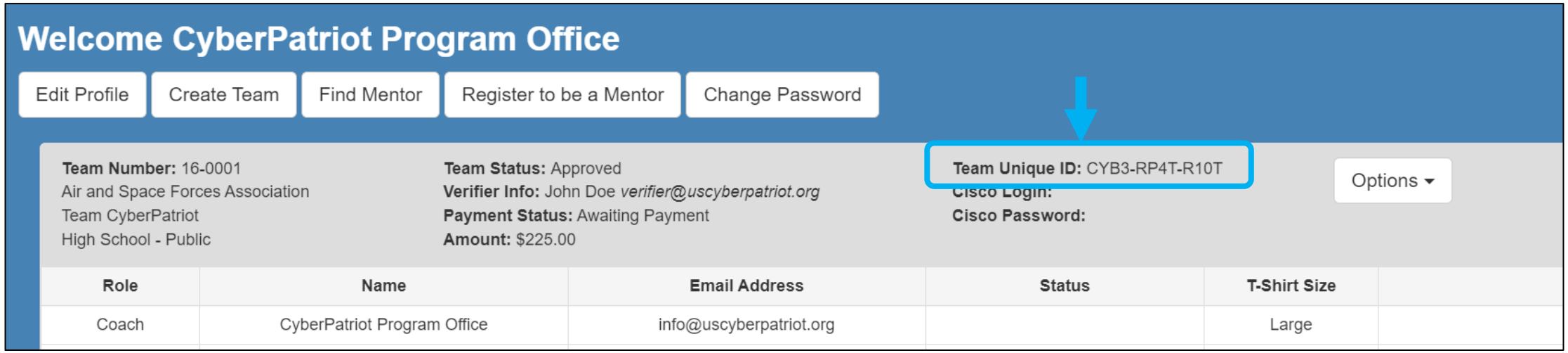
OPENING AN IMAGE

- Enter 12-character Unique ID.
  - Click ‘Apply’ and ‘OK’



TEAM UNIQUE ID

- Your team's Unique ID (UID) is listed on your volunteer dashboard



- This 12-character code uniquely identifies your team for the scoring server
  - UID should be treated like a password (do not share with other teams).
  - Correct Unique ID MUST be entered on competition days

README FILE

- The README file offers a scenario for the round, providing competition round hints and information
  - Teams should read this once the image is opened

CP-XVI Exhibition Round Ubuntu 16 README

Please read the entire README thoroughly before modifying anything on this computer. The Answer Key link is provided at the bottom of this document.

UNIQUE IDENTIFIER

If you have not yet entered a valid Unique Identifier, please do so immediately by double clicking on the "CyberPatriot Set Unique Identifier" icon on the desktop. If you do not enter a valid Unique Identifier this VM may stop functioning after a short period of time.

README FILE

- Example README file:

COMPETITION SCENARIO

This company's security policies require all user accounts be password protected. Employees are required to choose secure passwords, however this policy may not be currently enforced on this computer. It is very important to **write down all passwords you change**. The presence of any non-work related media files and "hacking tools" on any computers is strictly prohibited. This company currently does not use any centralized maintenance or polling tools to manage their IT equipment. This computer is for official business use only by authorized users.

UBUNTU 16.04

It is company policy to use only Ubuntu 16.04 on this computer. It is also company policy to use only the latest, official, stable Ubuntu 16.04 packages available for required software and services on this computer. Management has decided that the default web browser for all users on this computer should be the latest stable version of Firefox. Company policy is to never let users log in as root. If administrators need to run commands as root, they are required to use the "sudo" command.

Authorized users must be able to access this computer remotely using ssh.

Critical Services:

- OpenSSH Server (sshd)

Authorized administrators and users

AUTHORIZED ADMINISTRATORS AND USERS

Authorized Administrators:

ballen (you)
password: ir!%West
iwest
password: JiTTerS
pspivot
password: thawne25
grodd
password: ZoLomOn
jwells
password: quick

Authorized Users:

cramon
hrathaway
jwest

SCORING REPORT

- The scoring report shows the team's performance during the round (time competing, score, penalties, connectivity status)

SHUTTING DOWN / END OF ROUND

- To shut down an image at the end of a round, use the ‘Stop Scoring’ feature
- Delete all downloaded files once competition is over

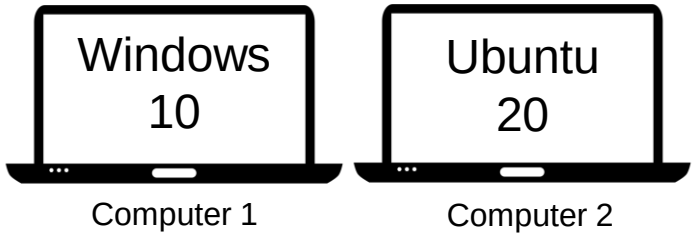
Shutdown and Stop Scoring Issues

- There are certain image security settings that will cause the *Stop Scoring Button* to malfunction. In the event your team receives an error using the *Stop Scoring Button*, please suspend the image using the following steps below:
  - Click the **Player** drop-down
  - Click **Power**
  - Click **Suspend Guest**, then **Yes** on the pop up
- Shutdown or restart the host computer and **do not** re-open the image or you may incur an overtime penalty. Please ensure the images are deleted at the end of each round.

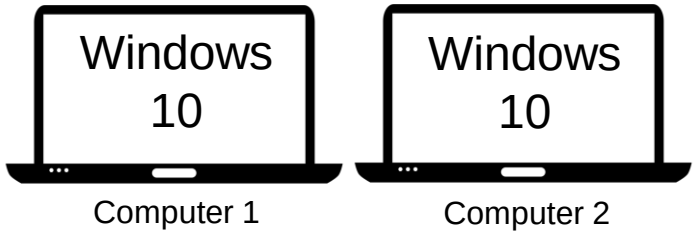
COMPETITION RULES

- Teams have four (4) hours to complete all assigned tasks during the round
  - Time starts when first image is opened in VMware
- Only one (1) instance of an image may be open. You CANNOT have multiple copies of the same image running simultaneously. Remember, just one image per computer

Acceptable Configuration



Multiple Instances Violation



COMPETITION RULES

- Teams may use notes and training resources during rounds.
  - All resources must be publicly accessible to all teams. You CANNOT use resources that require a paid subscription
- If an image experiences issues mid-round, you may extract a new copy and start over
  - Note: In that case, the team's score will revert to zero (0) for that image

The Air & Space Forces Association's

CYBERPATRIOT

The National Youth Cyber Education Program

CISCO NETACAD

CISCO NETWORKING ACADEMY

- CyberPatriot sponsor Cisco generously donates the Cisco NetAcad Challenge to the CyberPatriot competition. Teams have access to two parts of Cisco NetAcad:
  - **The Content Course** – used to train teams on what they need to know for the competition
  - **The Competition Course** – used by teams to compete in the Cisco NetAcad Challenge during competition rounds

CISCO NETWORKING ACADEMY – CONTENT COURSE

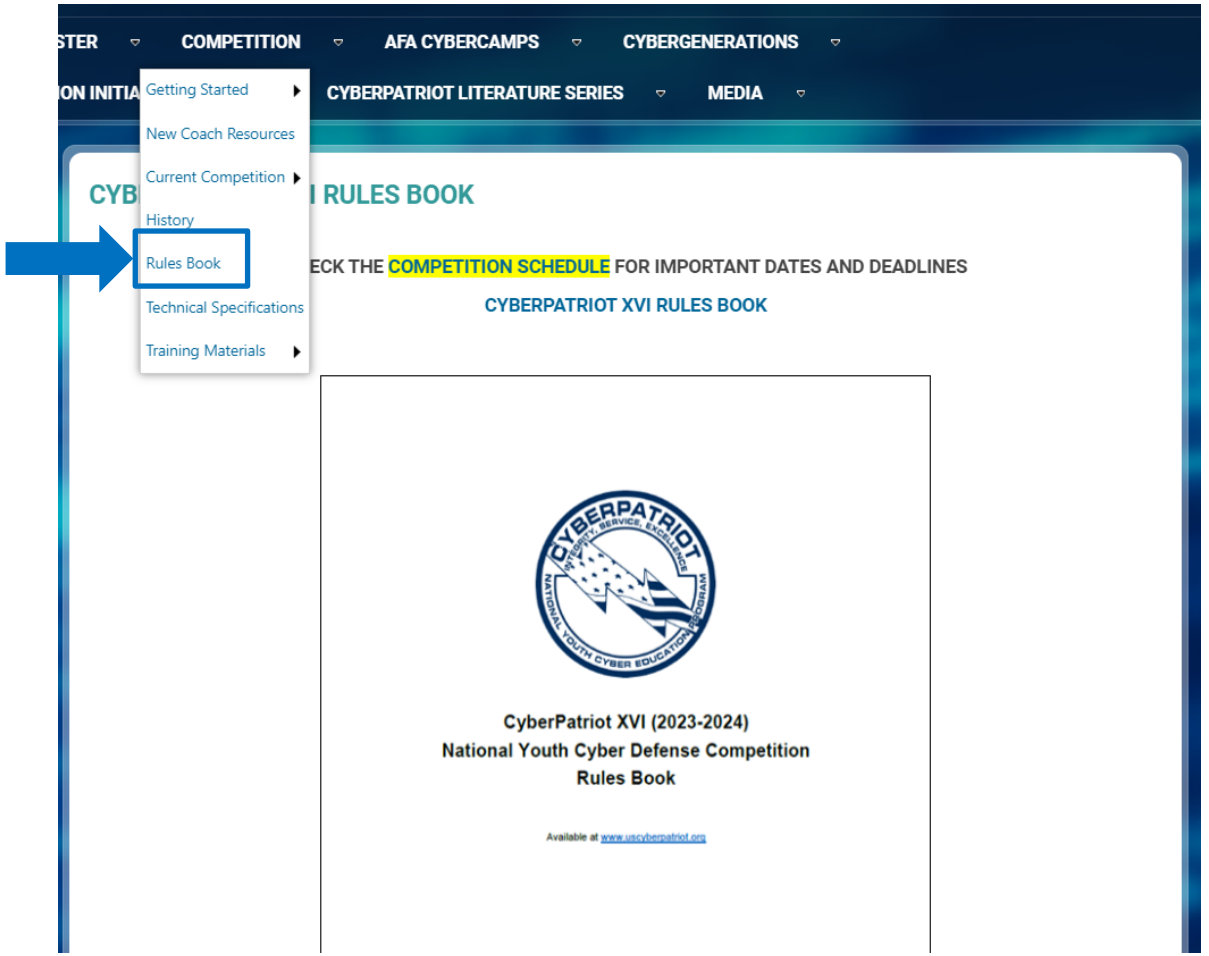
- CyberPatriot enrolls coaches and mentors under the email address they are registered with in the CyberPatriot system
  - Coaches then create their own content course leveraging the “Create Course” button

CISCO NETWORKING ACADEMY – COMPETITION COURSE

- Coaches must create an email address and NetAcad account just for the competition
  - Team number should be included in the email address for easy identification of teams and score attribution
  - Content course accounts (coaches or competitors) CANNOT be used for the competition
  - Each team must have a unique account
  - In previous years, CyberPatriot created these accounts but due to new verification requirements, we cannot create them in the future
  - DEADLINE: October 12

CYBERPATRIOT RULES BOOK

- Rules Book is available on CyberPatriot website under ‘Competition’ tab
  - We recommend reading prior to the start of the competition



QUESTIONS?

If at any point you need assistance, please contact the CyberPatriot Program Office:

info@uscyberpatriot.org

877-885-5716

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