



The Air Force Association's

CYBERPATRIOT

The National Youth Cyber Education Program

NEW COACH WORKSHOP

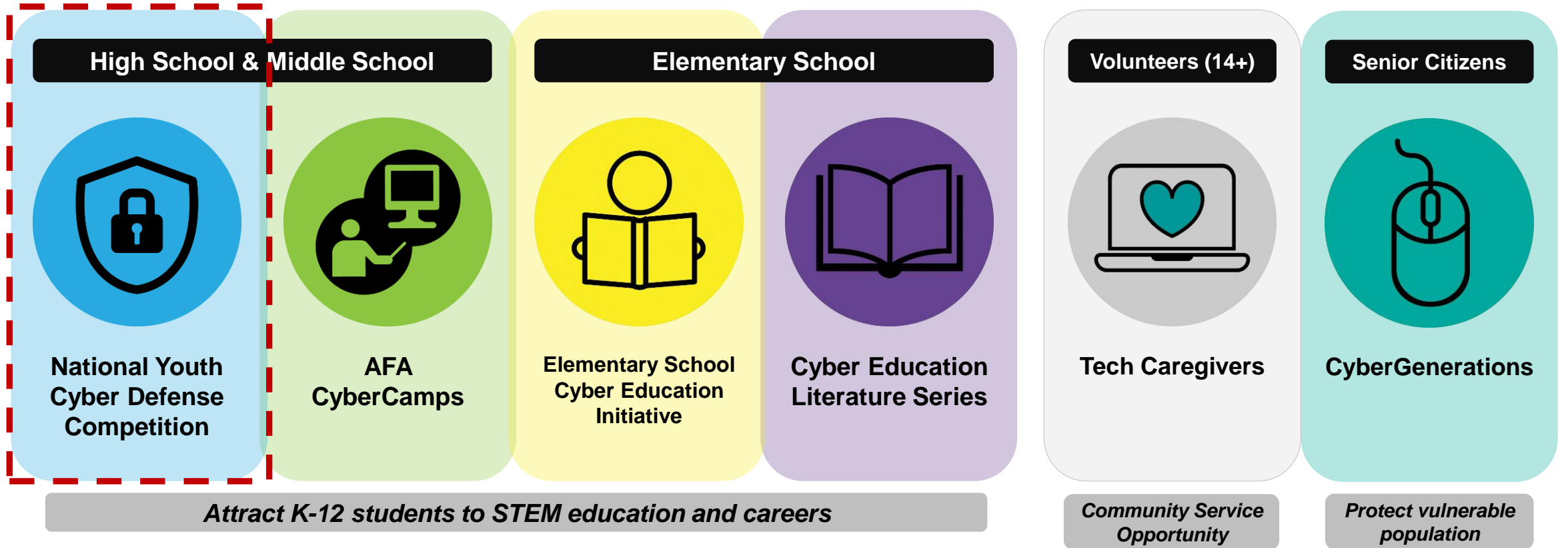
THE AIR FORCE ASSOCIATION (AFA)



- 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



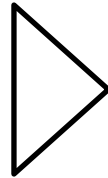
CYBERPATRIOT PROGRAMS



NATIONAL YOUTH CYBER DEFENSE COMPETITION



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



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



Grades 6-12



A program of the Air Force Association

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



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	\$165 / team	Fees are waived for all JROTC, Civil Air Patrol, and Naval Sea Cadet teams	\$130 / team
Registered after July 1	\$205 / team		\$165 / team

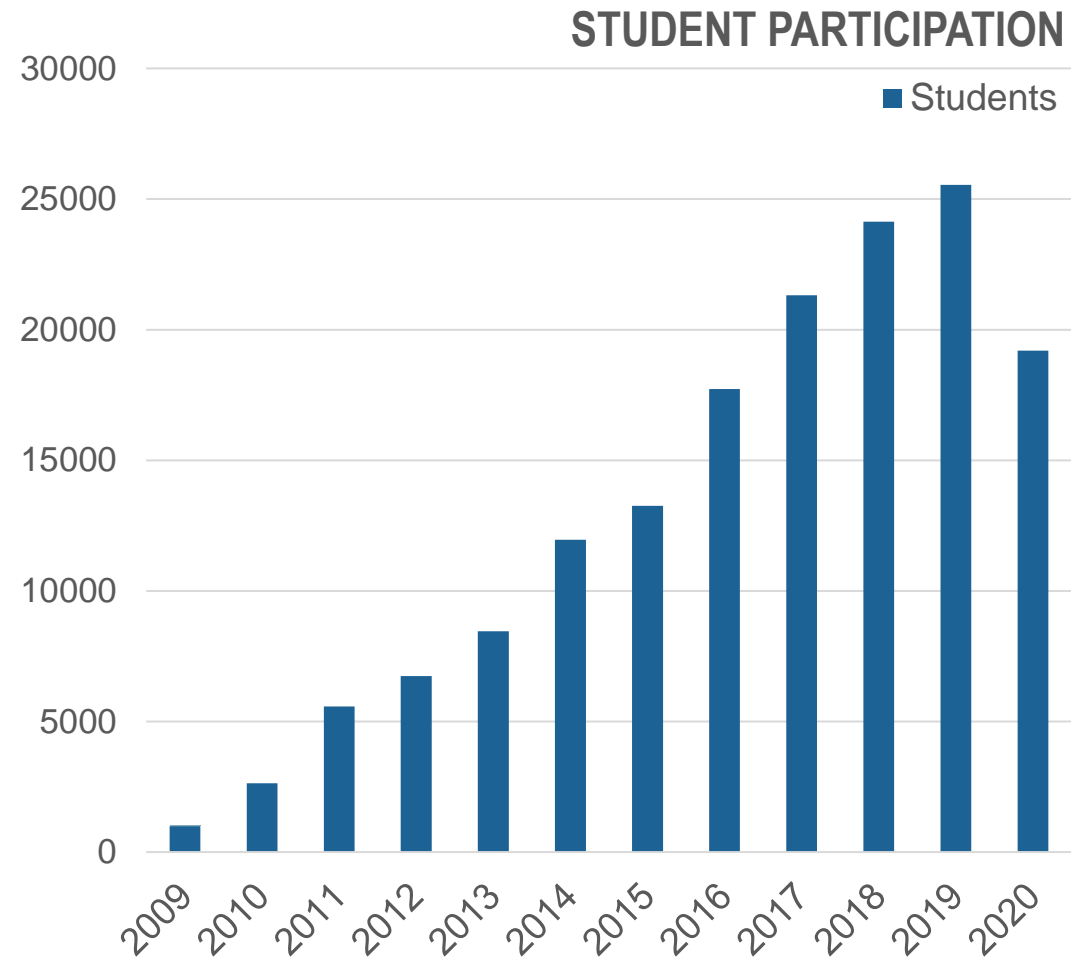
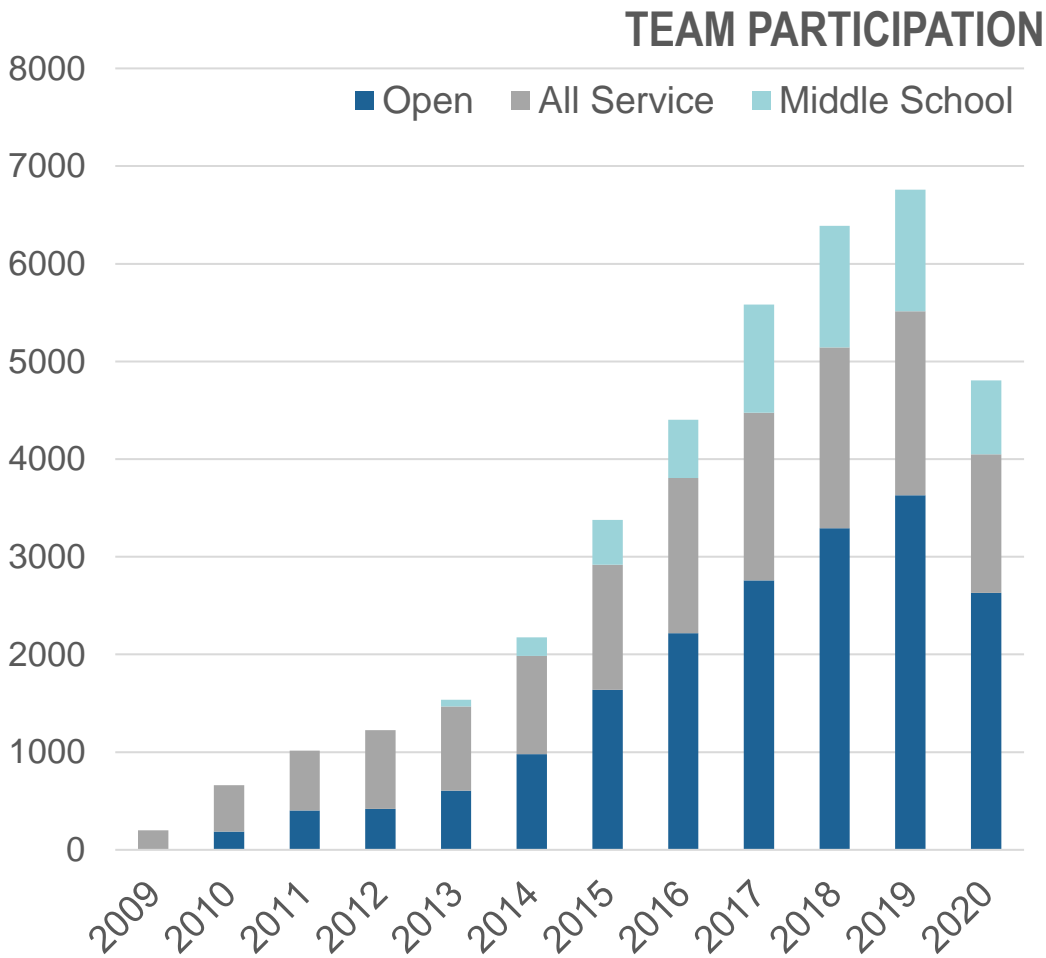
ADDITIONAL FEE WAIVERS:

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)

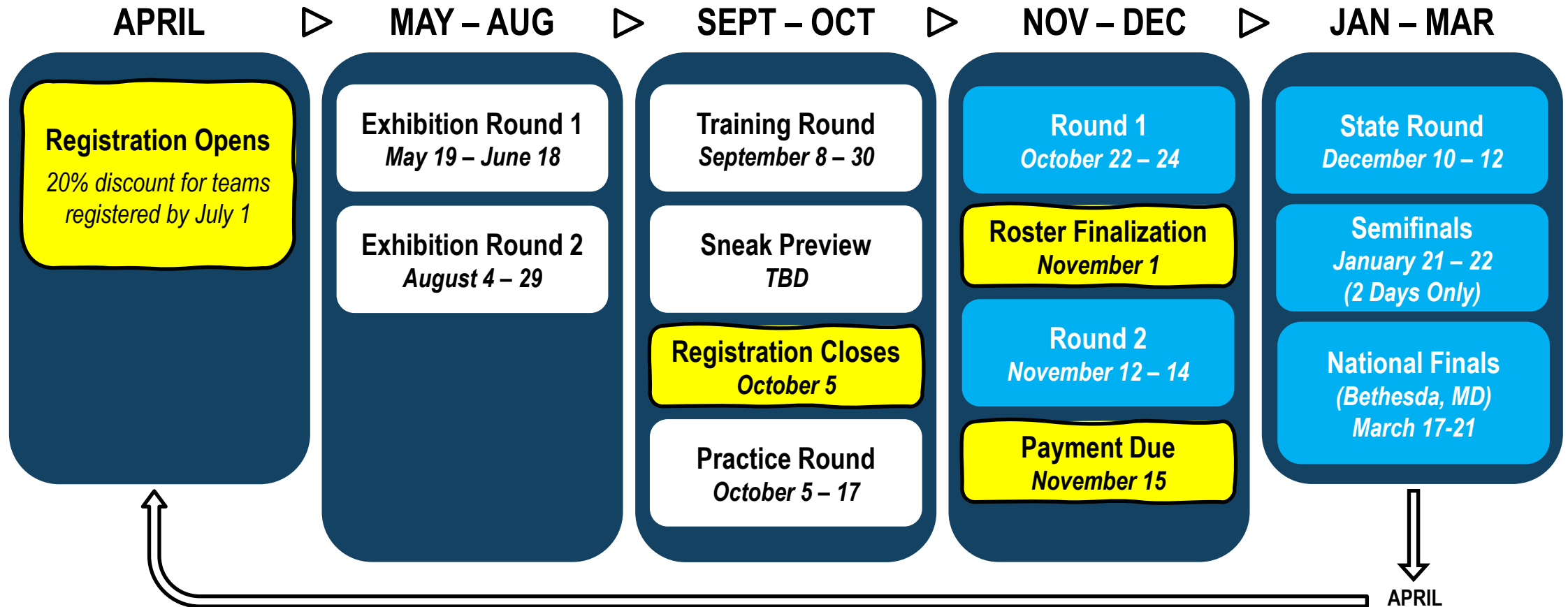


REGISTRATION NUMBERS



COMPETITION SCHEDULE

CyberPatriot XIV (2021-2022) Competition Timeline



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 teammates





The Air Force Association's

CYBERPATRIOT

The National Youth Cyber Education Program

REGISTRATION PROCESS

REGISTRATION DEADLINES

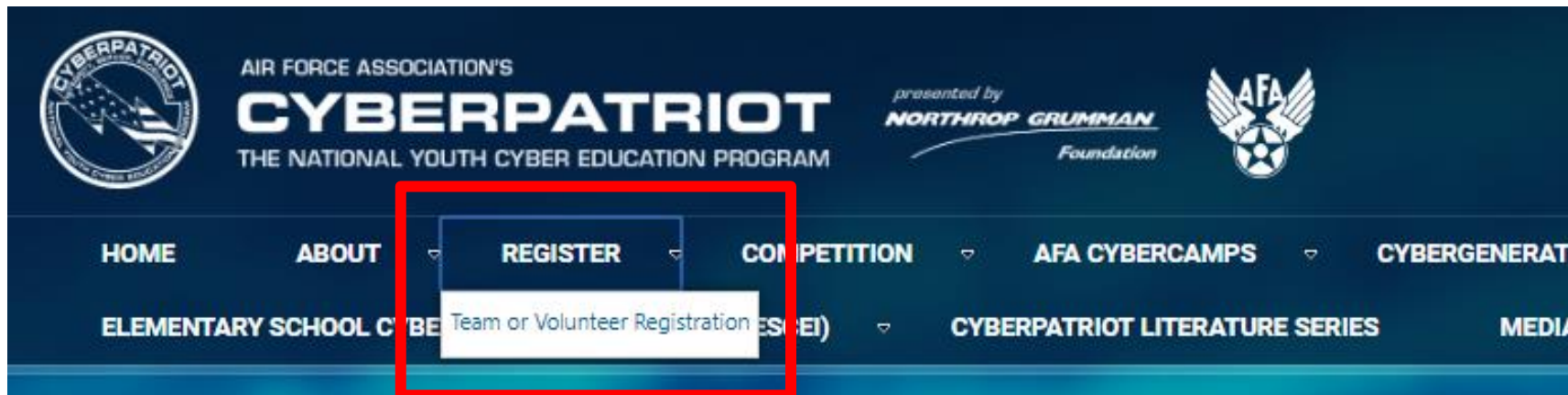
Important registration dates and deadlines:

DATE	TASK
April 1, 2021	Registration Opens 20% early-bird discount offered
July 1, 2021	End of 20% early-bird discount
October 5, 2021	Team Registration Deadline This is the last day to register a new team. Competitors do not need to be registered at this point.
November 1, 2021	Competitor Registration Deadline This is the last day to add competitors to a roster or move competitors between rosters.
November 15, 2021	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

CYBERPATRIOT VOLUNTEER REGISTRATION

Fields marked with an * (asterisk) are required.

First Name: * First names may only contain letters and spaces.

Last Name: * Last names may only contain letters and hyphens.

Phone Number: *

Phone Ext.:

Email Address: * Email addresses may only contain letters, numbers, and dots.

Password: * Passwords must be at least 8 characters long.

Confirm Password: *

Password Question: *

Password Answer: *


How you found out?

If other, Specify source:

T-Shirt size:

Agree to media release [terms](#)? ☐ *

Agree to competition [terms](#)? ☐ *

How much is:  *



VOLUNTEER REGISTRATION

- To sign in, click 'Competition Sign In' on homepage

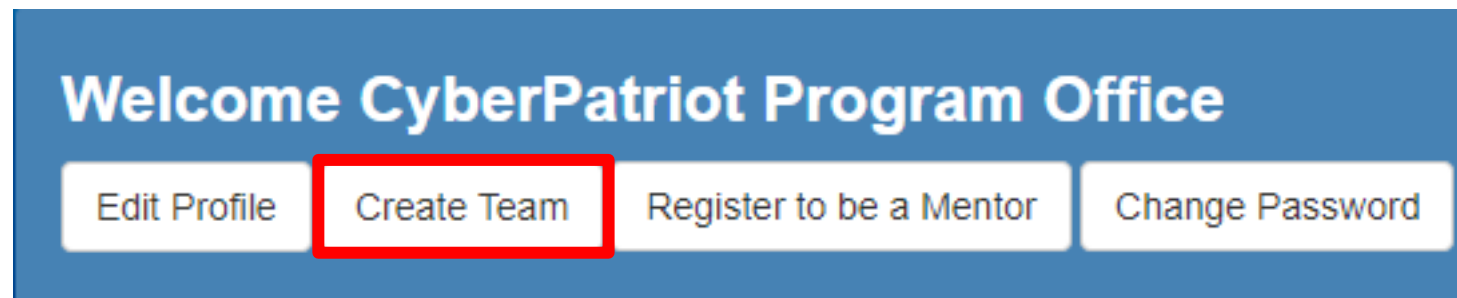


- Log-in with the username (email address) and password created during volunteer registration process.



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**

Verifier Information

The Verification Official should be a school administrator, organization executive or unit commander or deputy commander. Coaches CANNOT act as their own verification official.

Full Name

Title

Email Address



COACH / TEAM REGISTRATION

Once created, team information appears as such:

Welcome CyberPatriot Program Office

[Edit Profile](#)[Create Team](#)[Register to be a Mentor](#)[Change Password](#)

Team Number: 12-0002

Air Force Association

Team Nickname

High School - Charter/Magnet

Team Status: Awaiting Verification

Verifier Info: John Doe verifier@uscyberpatriot.org

Payment Status: Not Available

Amount: \$205.00

Team Unique ID: CYB3-RP4T-R10T

Cisco Login: 120002cp

Cisco Password: CYB3-RP4T-R10Tcp

Options ▾

Resend verifier email

Edit Team Info

Role	Name	Email Address	Status	T-Shirt Si
Coach	CyberPatriot Program Office	info@uscyberpatriot.org		Large
Competitor	Bernie Skoch	Bernie@uscyberpatriot.org	Registration Pending	Medium



DASHBOARD - TEAM INFORMATION

Welcome CyberPatriot

Edit Profile Create Team My Profile

Team Number: 12-0002

Air Force Association

Team Nickname

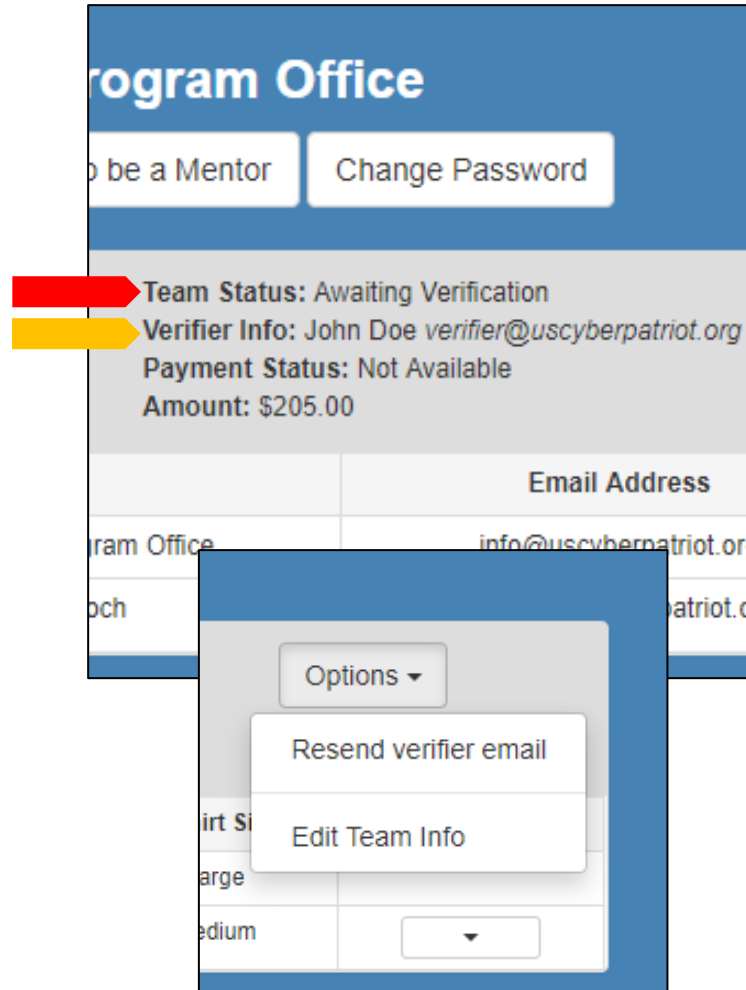
High School - Charter/Magnet

Role	
Coach	CyberPatriot

- **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

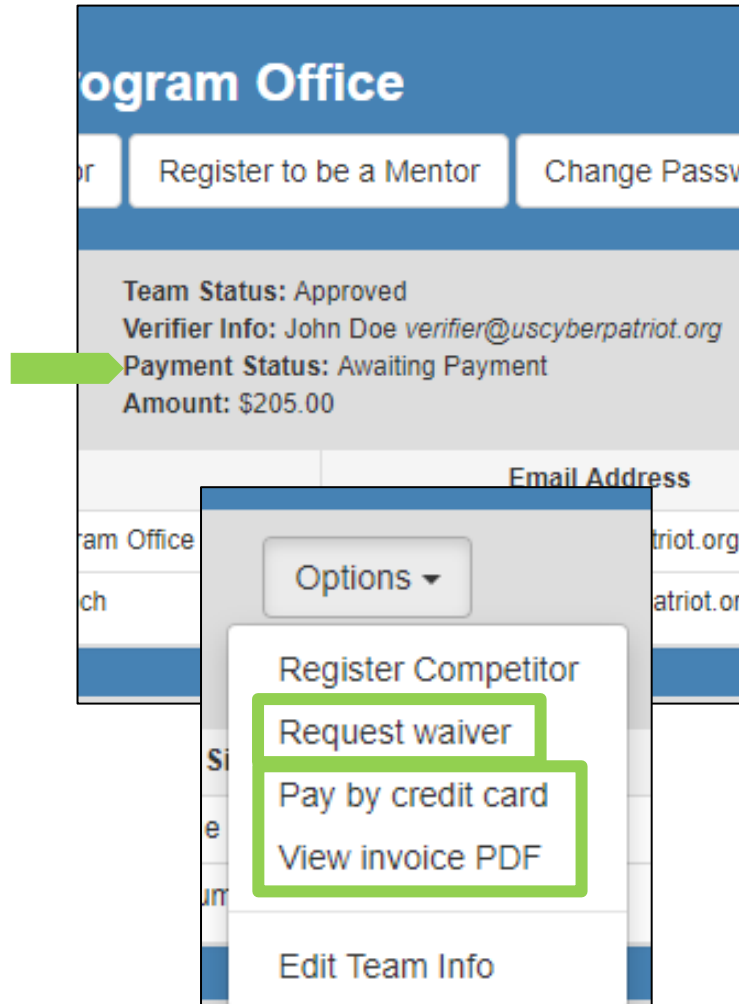


Team Status: Indicates how far along team is in approval process.

- ***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 final team review.
- ***Approved:*** All steps have been completed and the team is ready for the next steps.



DASHBOARD – PAYMENT STATUS

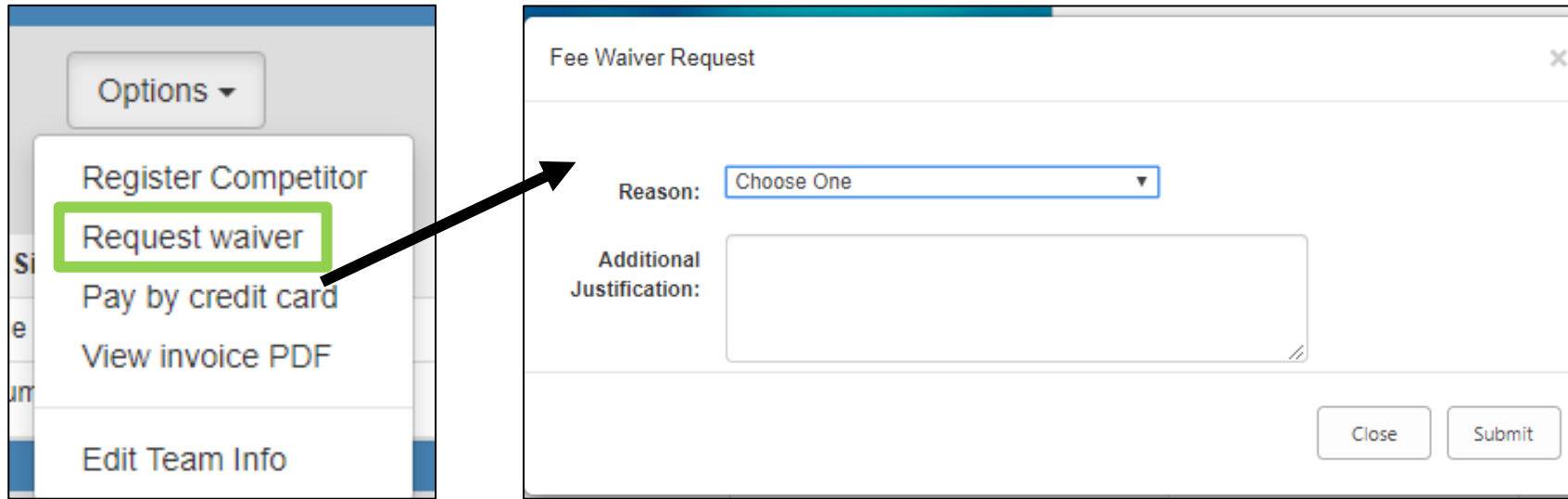


Payment Status:

- **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



The image shows a two-step process for requesting a fee waiver. The first step is a dropdown menu under the 'Options' tab, where 'Request waiver' is highlighted. An arrow indicates that clicking this option leads to the 'Fee Waiver Request' form. The second step shows the form itself, which includes a 'Reason:' dropdown menu (currently set to 'Choose One'), a text area for 'Additional Justification:', and 'Close' and 'Submit' buttons at the bottom.

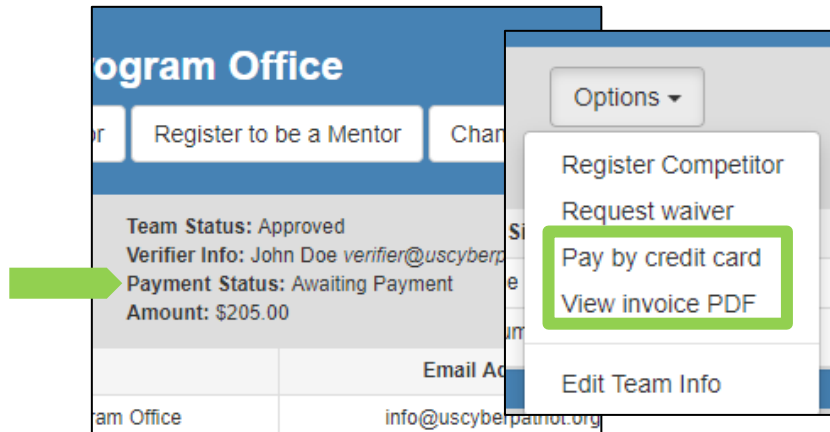
- Fee waiver requests are available for:
 - **Organizations with Title I status** or where there is insufficient funding.
 - Letter from a school administrator stating Title I status for current school year should be emailed to info@uscyberpatriot.org after request is submitted from the dashboard.
 - **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 Force Association with copy of invoice (address on invoice)

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

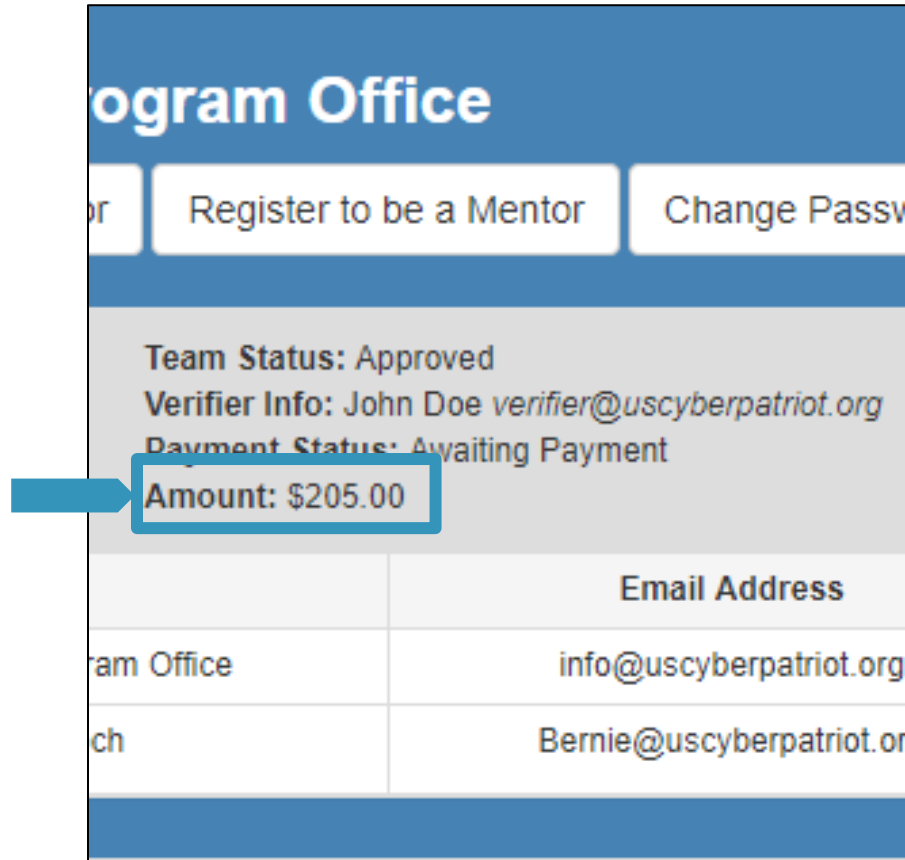


REGISTRATION FEES

Registration Fee Amounts

- Open Division: \$205
 - \$165 if registered before July 1
- Middle School: \$165
 - \$130 if registered before July 1
- All Service Division & Middle School Civil Air Patrol: WAIVED

- Team fees (or waiver requests) are due by November 15, 2021



Program Office

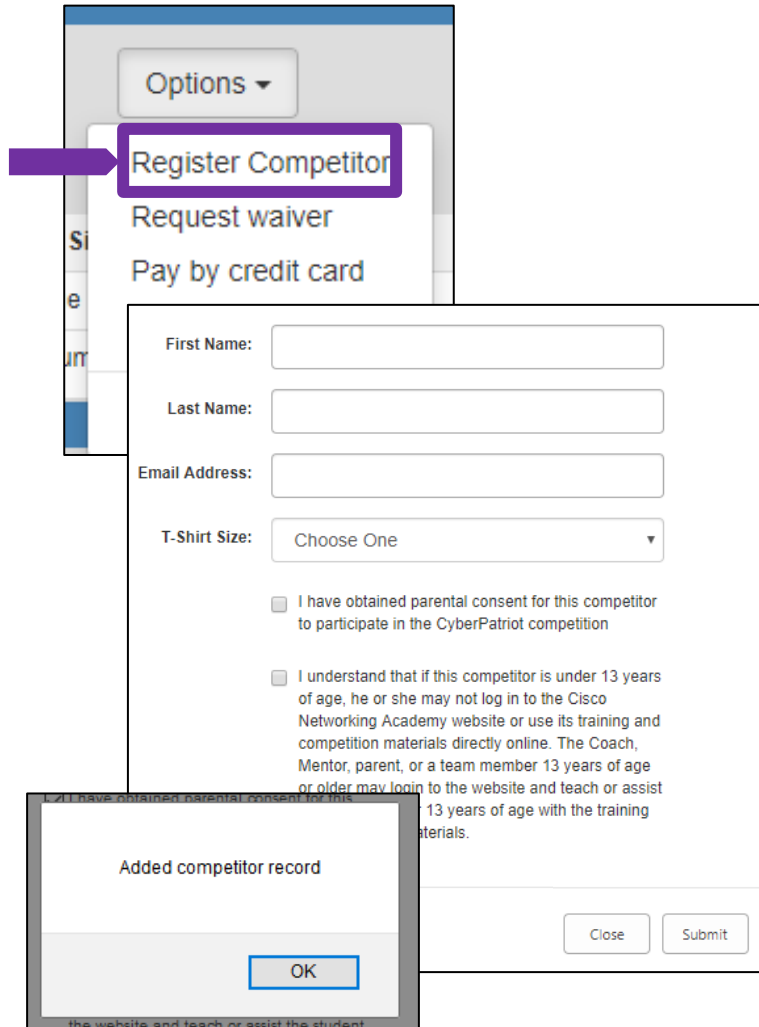
or Register to be a Mentor Change Passw

Team Status: Approved
Verifier Info: John Doe verifier@uscyberpatriot.org
Payment Status: Awaiting Payment
Amount: \$205.00

	Email Address
Program Office	info@uscyberpatriot.org
Coach	Bernie@uscyberpatriot.org



COMPETITOR REGISTRATION



The screenshot shows a web interface for competitor registration. At the top, there is a dropdown menu labeled 'Options' with a downward arrow. A purple arrow points to the 'Register Competitor' option in the dropdown. Below the dropdown, there are links for 'Request waiver' and 'Pay by credit card'. The main form contains the following fields and options:

- First Name:
- Last Name:
- Email Address:
- T-Shirt Size:
- ☐ I have obtained parental consent for this competitor to participate in the CyberPatriot competition
- ☐ I understand that if this competitor is under 13 years of age, he or she may not log in to the Cisco Networking Academy website or use its training and competition materials directly online. The Coach, Mentor, parent, or a team member 13 years of age or older may login to the website and teach or assist the student.

At the bottom of the form, there are 'Close' and 'Submit' buttons. A small modal window at the bottom left displays the message 'Added competitor record' with an 'OK' button.

‘Approved’ team status required before competitors can be registered

Competitor Registration:

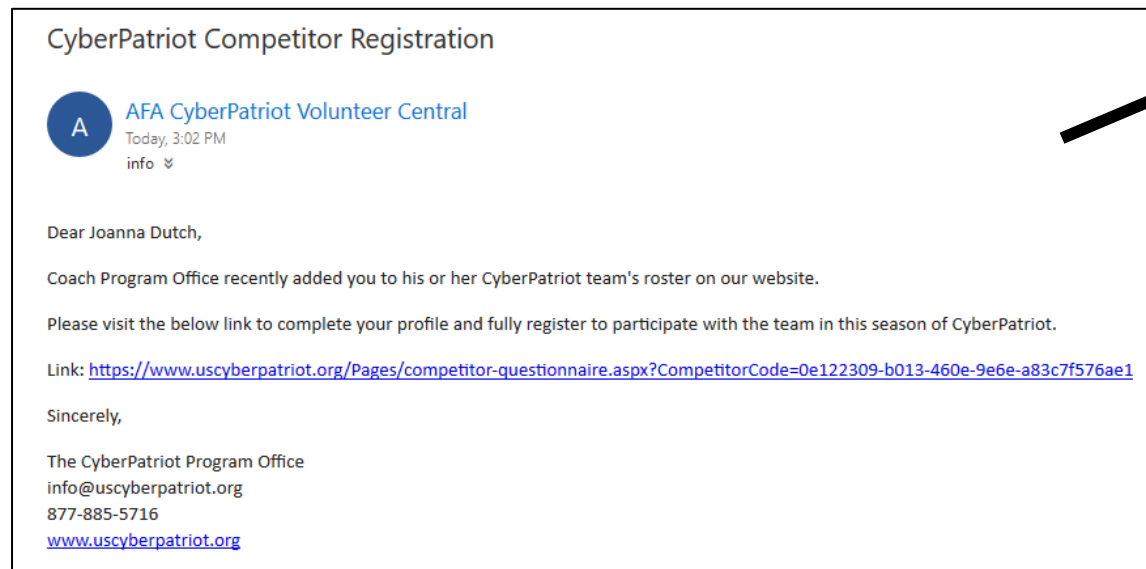
- Select ‘Register Competitor’ from options menu
- Provide student’s first name, last name, email address, t-shirt size.
- Agree to parental approval and Cisco terms
- Click ‘Submit’



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

A registration form titled 'Welcome!' with the team number 12-3046. It is divided into four sections: Personal Information, Address Information, and Additional Information. The Personal Information section includes fields for First Name (Joanna), Last Name (Dutch), Primary Phone, Email (info@uscyberpatriot.org), Parent's Email, Birth Year, Birth Month (dropdown), Gender (dropdown), and Race (dropdown). The Address Information section includes fields for Street Address, City, State (Alabama dropdown), Country (United States dropdown), and Zip. The Additional Information section includes fields for Graduation Year, Current GPA, and Interests.

Welcome!

Your Team Number: 12-3046

Personal Information

First Name:

Last Name:

Primary Phone:

Email:

Parent's Email:

Birth Year:

Birth Month:

Gender:

Race:

Address Information

Street Address:

City:

State:

Country:

Zip:

Additional Information

Graduation Year:

Current GPA:

Interests:



COMPETITOR REGISTRATION

- **Competitor Status:**

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

Team Number: 12-0002
Air Force Association
Team Nickname
High School - Charter/Magnet

Team Status: Approved
Verifier Info: John Doe verifier@uscyberpatriot.org
Payment Status: Awaiting Payment
Amount: \$205.00

Team Unique ID: CYB3-RP4T-R10T
Cisco Login: 120002cp
Cisco Password: CYB3-RP4T-R10Tcp

Options ▾

Role	Name	Email Address	Status	T-Shirt Size	
Coach	CyberPatriot Program Office	info@uscyberpatriot.org		Large	
Competitor	Bernie Skoch	Bernie@uscyberpatriot.org	Registration Pending	Medium	▾
Competitor	Frank Zaborowski	Frank@uscyberpatriot.org	Registration Pending	Large	
Competitor	Rachel Zimmerman	Rachel@uscyberpatriot.org	Registration Pending	Medium	
Competitor	Rebecca Dalton	Rebecca@uscyberpatriot.org	Registration Pending	Medium	

Update Competitor

Delete Competitor

Change Team ▶

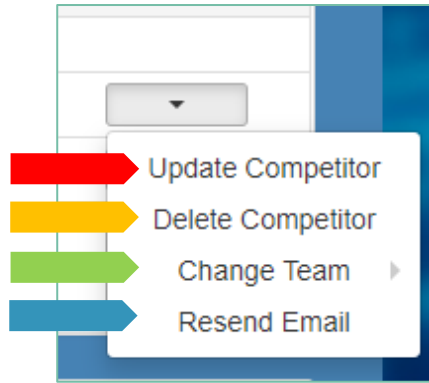
Resend Email

Rosters must be finalized by November 1, 2021

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 you have 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

Welcome CyberPatriot Program Office

Edit Profile Create Profile Find Mentor Register to be a Mentor Change Password

Team Number: 12-0002
Air Force Association
Team Nickname
High School - Charter/Magnet

Team Status: Approved
Verifier Info: John Doe verifier@uscyberpatriot.org
Payment Status: Awaiting Payment
Amount: \$205.00

Role	Name	Email Address
Coach	CyberPatriot Program Office	info@uscyberpatriot.org
Competitor	Bernie Skoch	Bernie@uscyberpatriot.org

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

BACK TO CYBERPATRIOT HOME DASHBOARD

☒ US ☐ Canada

State: Include virtual mentors ☐


First Name	Last Name	State/Province	Mentor City	Mentor Type	About Mentor	Virtual	Sponsor Employee		
CyberPatriot	Mentor	Virginia	AAAA	Technical Mentor		No		<input type="button" value="Contact Mentor"/>	<input type="button" value="Invite Mentor"/>
Heather	Tedder	Virginia	Abingdon	Technical Mentor		Yes	Northrop Grumman	<input type="button" value="Contact Mentor"/>	<input type="button" value="Invite Mentor"/>
Erick	Gonzalez	Virginia	Aldie	Technical Mentor	8 years of experience as a database and systems administrator in the department of defense.	Yes		<input type="button" value="Contact Mentor"/>	<input type="button" value="Invite 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

State: Include virtual mentors ☐ Find Mentors

First Name	Last Name	State/Province	Mentor City	Mentor Type	About Mentor	Virtual	Sponsor Employee		
CyberPatriot	Mentor	Virginia	AAAA	Technical Mentor		No			Contact Mentor Invite Mentor
Heather	Tedder	Virginia	Abingdon	Technical Mentor		Yes	Northrop Grumman		Contact Mentor Invite Mentor
Erick	Gonzalez	Virginia	Aldie	Technical Mentor	8 years of experience as a database and systems administrator in the department of defense. I currently work as a Cyber	Yes			Contact Mentor Invite 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

First Name	Last Name	State/Province	Mentor City	Mentor Type	About Mentor	Virtual	Sponsor Employee
CyberPatriot	Mentor	Virginia	AAAA	Technical Mentor		No	

- 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

Team Number: 12-0002 Air Force Association Team Nickname JROTC - Air Force		Team Status: Approved Verifier Info: John Doe <i>verifier@uscyberpatriot.org</i> Payment Status: Waived Amount: \$0.00		Team Unique ID: CYB3-RP4T-R10T Cisco Login: 120002cp Cisco Password: CYB3-RP4T-R10Tcp		Options ▾
Role	Name	Email Address	Status	T-Shirt Size		
Coach	CyberPatriot Program Office	info@uscyberpatriot.org		Medium		
Mentor	rmbat.t@gmail.com	rmbat.t@gmail.com	Active		▾	
Competitor	Bernie Skoch	Bernie@uscyberpatriot.org	Registration Pending	Medium	Remove 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 Force 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 – EXHIBITION ROUNDS

Non-Competition Rounds

Round	Dates	Purpose
Exhibition Rounds	Round 1: May 19 – June 18 Round 2: August 4 – 29	Demonstrate to potential coaches, mentors, and competitors what the competition is like.
Training Round	September 8 – 30	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 – 17	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.

CyberPatriot Demo Order Form

<https://forms.gle/4K7QiekNKpmr5np37>





The Air Force 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 (if applicable)
 - Other information specific to the round
- StartEx (“Start Exercise”) email sent at start of round (Friday, 9:00 AM ET)
- Competition Open Schedule:
 - Friday 9:00 AM – Saturday 3:00 AM ET
 - Saturday 8:00 AM – 11:59 PM ET
 - Sunday 10:00 AM – 10:00 PM ET



COMPETITION ROUNDS

Round	Date	Eligibility	Number of Images	Cisco
Round 1	October 22 – 24	All approved teams	Two (2) or three (3) images	Cisco Quiz and Packet Tracer for all Divisions
Round 2	November 12 – 14	All approved teams	Two (2) or three (3) images	Cisco Quiz and Packet Tracer for all Divisions



SKILL TIERS

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:

1. The percentages of All Service Division teams are based on their service category.
2. Middle School teams are not divided into tiers.



COMPETITION ROUNDS

Round	Date	Eligibility	Number of Images	Cisco
State Round Stand alone round – scores from prior rounds do not count toward advancement or awards	December 10 – 12	All approved teams	Three (3) or four (4) images	Cisco Quiz and Packet Tracer for all Divisions and 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 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
- Middle School State Awards are earned by the 3 top scoring teams in each state and At Large.

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.
- Middle School Division. Teams with top 50% State Round score.



COMPETITION ROUNDS

Round	Date	Eligibility	Number of Images	Cisco
Semifinal Round	January 21 – 22 *Two days only*	Qualifying teams only	Three (3) or four (4) images	Cisco Quiz and Packet Tracer for all Divisions and Tiers



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

Top 12 teams
advance

All Service Division

Top 2 teams
per category plus one
wildcard team advance

Categories = Air Force, Army, Navy, Marine
Corps, CAP, NSCC

Middle School Division

Top 3 teams
advance



NATIONAL FINALS COMPETITION

General Information

- **Date:** March 17 – 21, 2022
- **Location:** Bethesda North Marriott Hotel (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
- Winning teams in high school divisions (first, second, third) receive scholarship funds from Northrop Grumman. Cisco also provide scholarship funds for the top high school teams in the Cisco NetAcad Challenge at National Finals
 - First Place = \$2,000 per student
 - Second Place = \$1,500 per student
 - Third Place = \$1,000 per student



NATIONAL FINALS COMPETITION

Tentative schedule for CP-XIV National Finals

DATE	ACTIVITY
Thursday, March 17	Travel Day – Teams Arrive
Friday, March 18	<ul style="list-style-type: none">• Tour of Northrop Grumman Facility• Competition Orientation/Familiarization• “Career Day” event with sponsor representatives• Competitors’ Dinner
Saturday, March 19	Main Competition Day <ul style="list-style-type: none">• Network Security Master Challenge• Cisco NetAcad Challenge• Other challenges TBD
Sunday, March 20	Awards Banquet
Monday, March 21	Travel Day – Teams Depart





The Air Force 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, competitors are given several images of various operating systems. For example, they may receive a Windows 10 image and an Ubuntu 16 image in the first round of competition.
- **Host Machine:** The physical computer that the competitors 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 (1024x768) or higher display. 1280x1024 recommended



TECHNICAL SPECIFICATIONS – SOFTWARE

Operating Systems

- 64-bit Windows 8.1 or later (OS must run VMWare Workstation Player 15.1.0)
- 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 will be announced before Round 1
- 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 Networking Challenge
- Downloaded from a user account at netacad.com
- The official version of Cisco Packet Tracer will be announced before the competition season



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	Volunteer 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
S3.amazonaws.com	Links to competition information and image downloads
Search Engines (Google, etc.)	For research and updates





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**DOWNLOADING & OPENING
AN IMAGE**

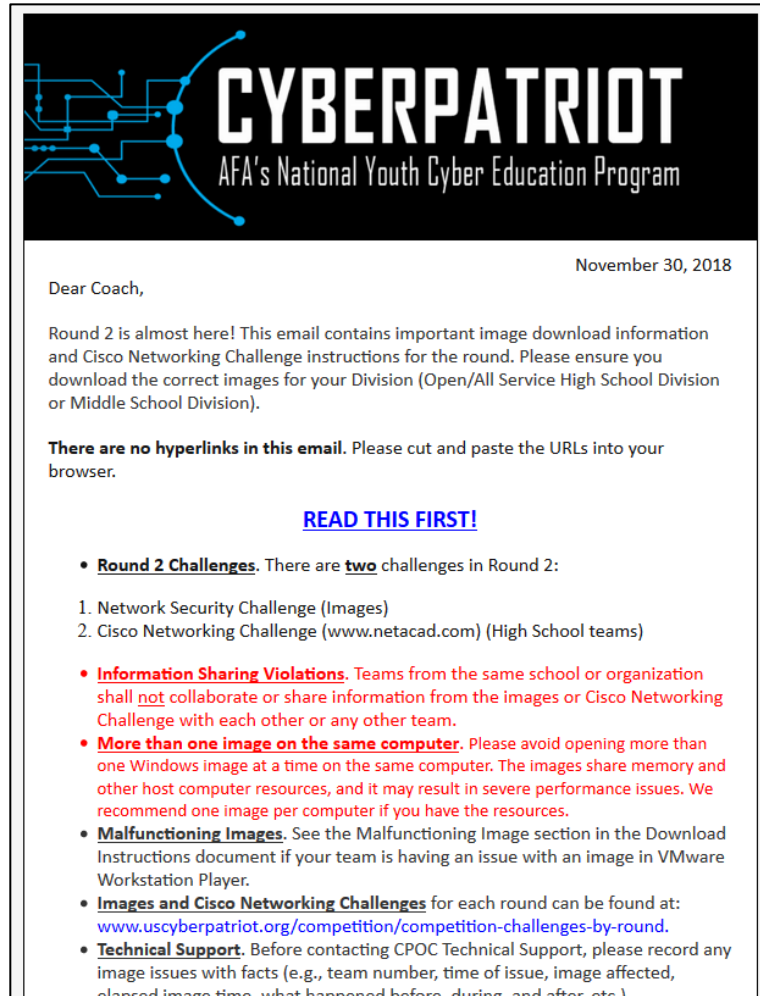
DOWNLOAD INSTRUCTIONS

- 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.

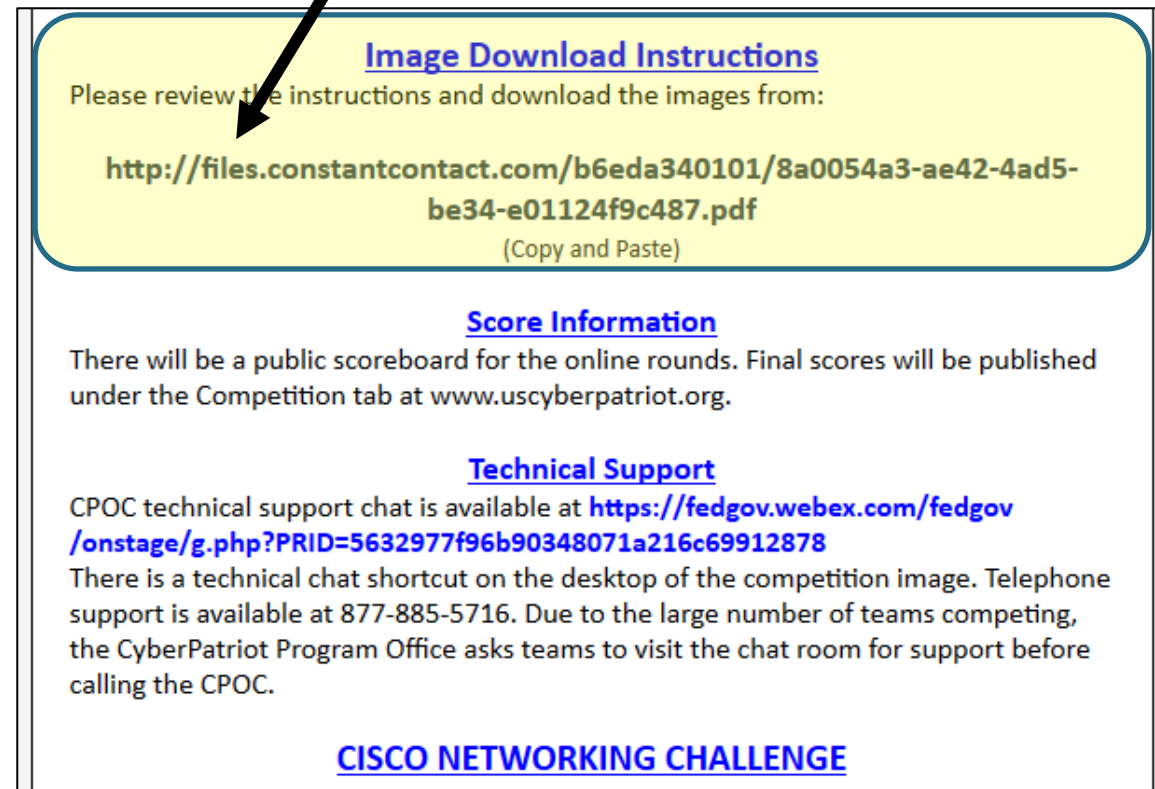
Monday	Tuesday	Wednesday	Thursday	Friday
Download Instructions sent				Start of scored round (Extraction Password Sent)



DOWNLOAD INSTRUCTIONS EMAIL



From the download instructions email, copy and paste link to the instructions PDF into a web-browser URL bar.



DOWNLOAD INSTRUCTIONS



CyberPatriot Checklist and Instructions



Please read following checklist and detailed instructions carefully and completely before opening the demo or competition images. It is important that the steps are followed in sequential order.

CHECKLIST

- Host Machine Set-Up**
 - Enable Virtual Technology on the host computer BIOS if it is disabled
 - Ensure Internet Connectivity – The images must connect to the Internet to report scores.
- Software Installation**
 - Download and Install 7-Zip – [Instructions Here](#)
 - Download and Extract WinMD5 – [Instructions Here](#)
 - Download and Install VMware Workstation Player 15.1.0 (64-bit host) – [Instructions Here](#)
- Virtual Machine Download Instructions**
 - Download the Images – Use the links provided in the Exhibition Round Images email.
 - Verify the Image Checksums – [Instructions Here](#) – Checksums may be found in the Exhibition Round Images email.
 - Verify the Host System Time – The host system time (clock) must be correct.
 - Unzip the Images – Password to extract the images found in Exhibition Round email.
 - Open Images in VMware Workstation Player – [Instructions Here](#)

The image download links and checksums – along with full download instructions – are in listed the instructions PDF.

checksum. If the checksum of your downloaded image does not match the checksum provided in this document, you need to re-download that image.

Download Virtual Machine Images

Use the links below to download the images in password-protected folders. The images are large, so please download them as soon as possible. **NOTE: Some virtual machine image files are used by more than one Tier. Please avoid opening more than one Windows image at a time on the same computer. The images share memory and other host computer resources, and it may result in severe performance issues. We recommend one image per computer if you have the resources.**

Platinum Tier

Images

Windows 10: https://d3cwb24p5y5j5f.cloudfront.net/cpxi_state_pgsmsh_win10.zip
Server 2016: https://d3cwb24p5y5j5f.cloudfront.net/cpxi_state_ph_server2016.zip
Ubuntu 16: https://d3cwb24p5y5j5f.cloudfront.net/cpxi_state_pg_h_ubu16.zip

Verify Image Checksum

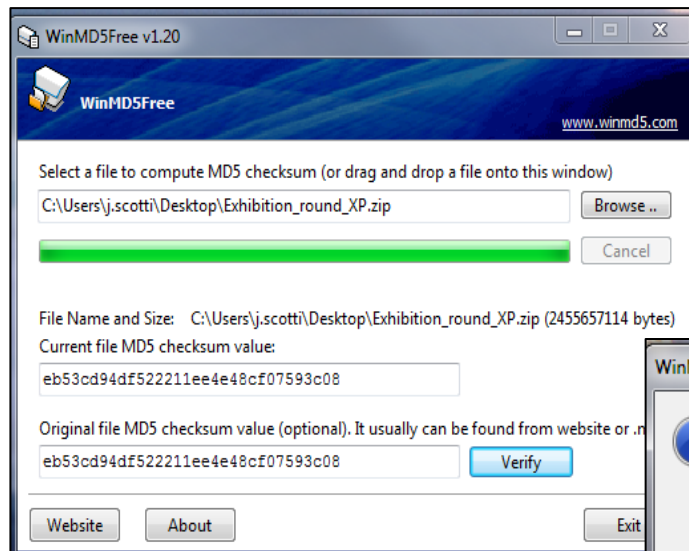
After downloading, use WinMD5 to calculate the image checksum (Instructions [here](#)). If the checksum matches the one below, you have successfully downloaded the image. If it does not, re-download the image. If the checksum does not match after several attempts, try using a different browser, computer, or network.

Windows 10: ee59d9f4ba51cae3db114959cd891184
Server 2016: cf59da947c39d66d92b0da2e535a113a
Ubuntu 16: f53c21fbf5de7f851ad2d376461ef6c8

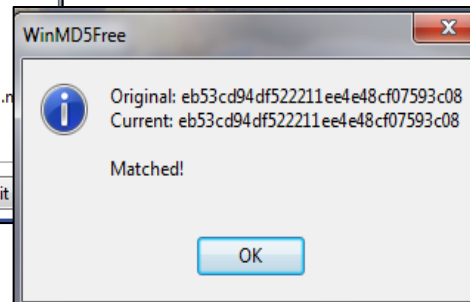


CHECKSUM

- 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 checksum of downloaded file, copy and paste the checksum provided by the CyberPatriot Program Office into the lower text field.
 - Click "Verify."

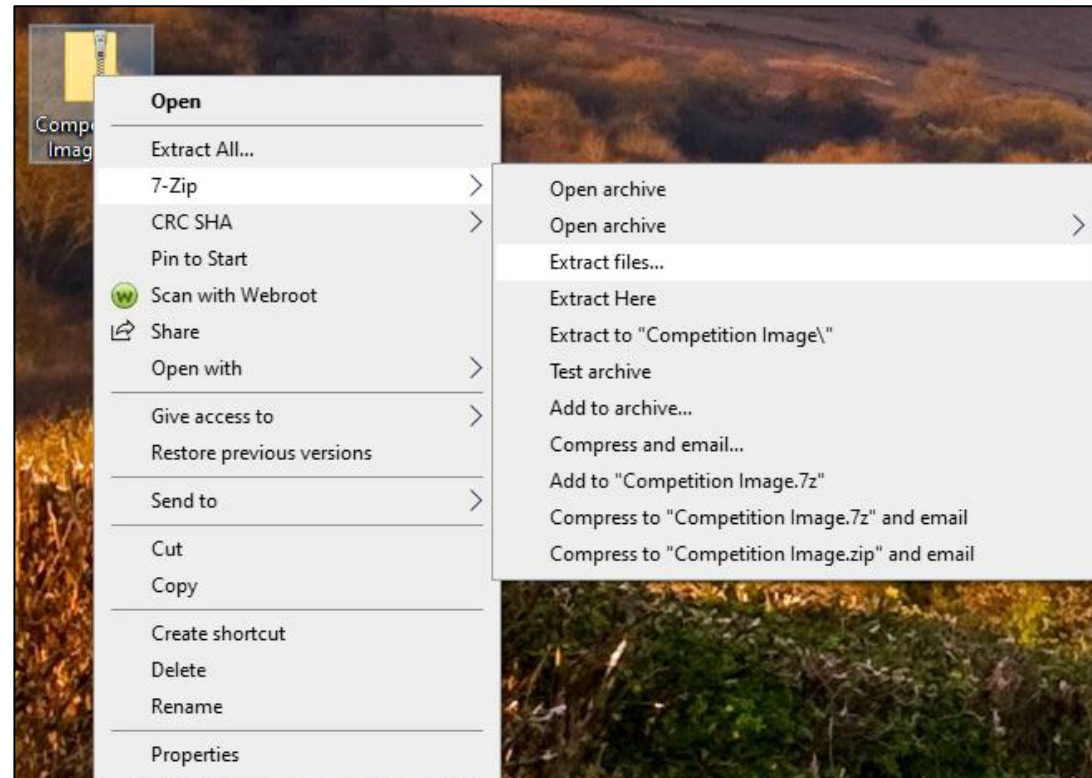


Checksums match: You're all set!
Images can be unzipped/extracted.
Checksums do NOT match:
Downloaded file is corrupted.
Download file again



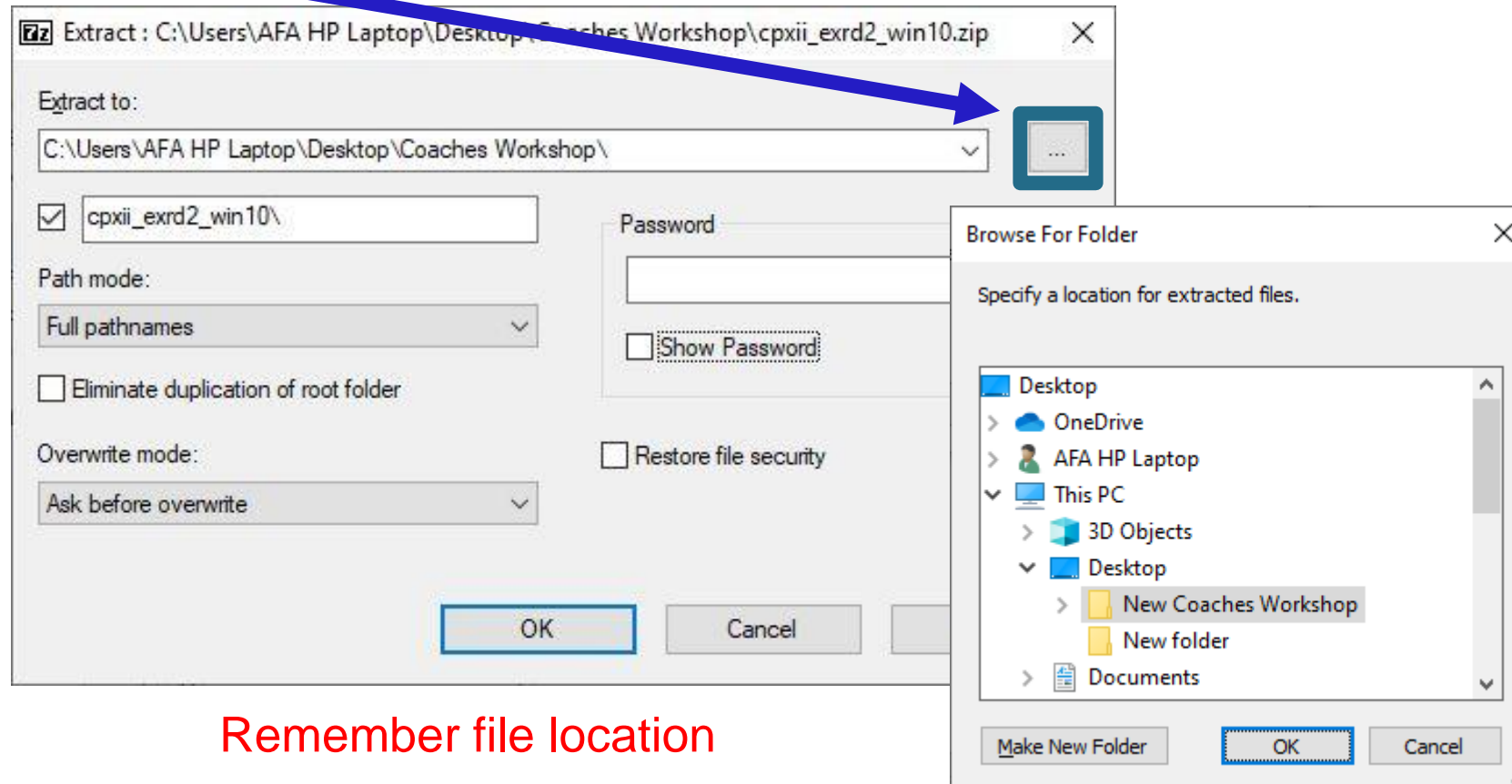
UNZIPPING/EXTRACTING IMAGES

- 7-Zip is the standard extraction software used by CyberPatriot
 - Right click downloaded zipped file
 - Hover over 7-Zip option and select 'Extract files...'



UNZIPPING/EXTRACTING IMAGES

- Click '...' to choose folder location for unzipped/extracted file

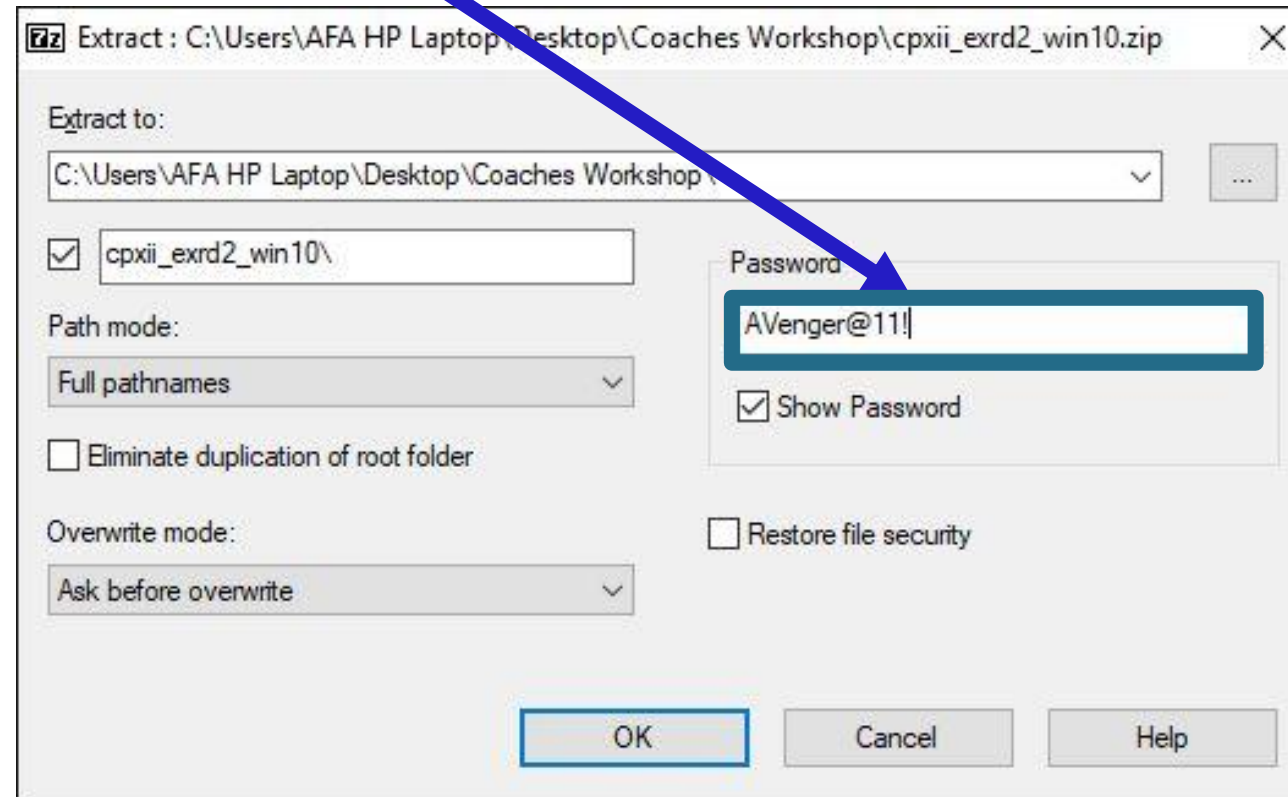


Remember file location



UNZIPPING/EXTRACTING IMAGES

- Type the image password from StartEx email

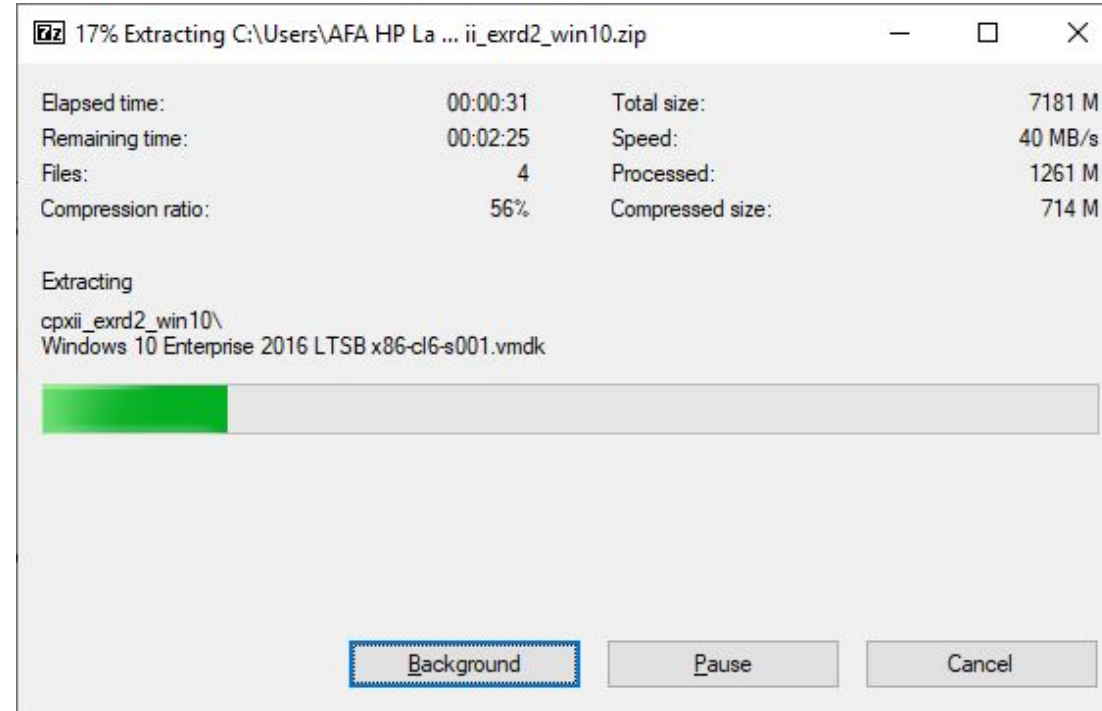


Note: Extraction password is NOT the UID



UNZIPPING/EXTRACTING IMAGES

- This is a properly extracting file:

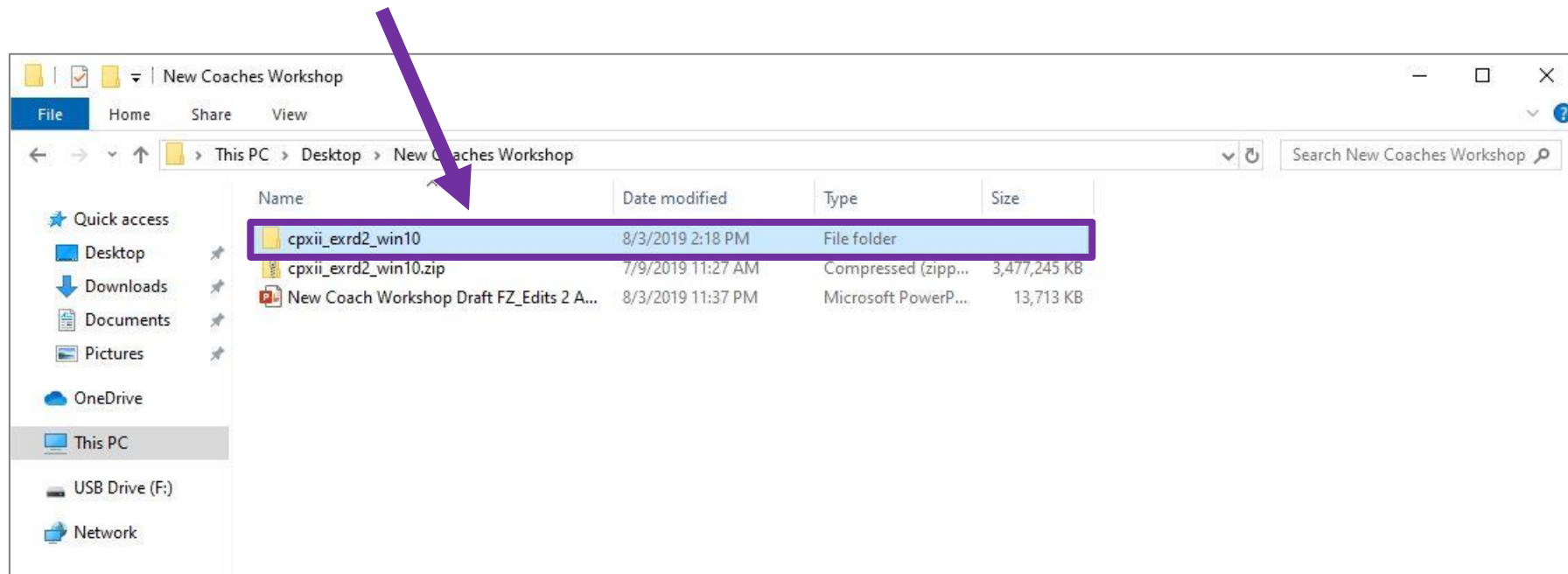


- Process should take a few minutes
 - If process only takes a few seconds, the password is incorrect



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.)



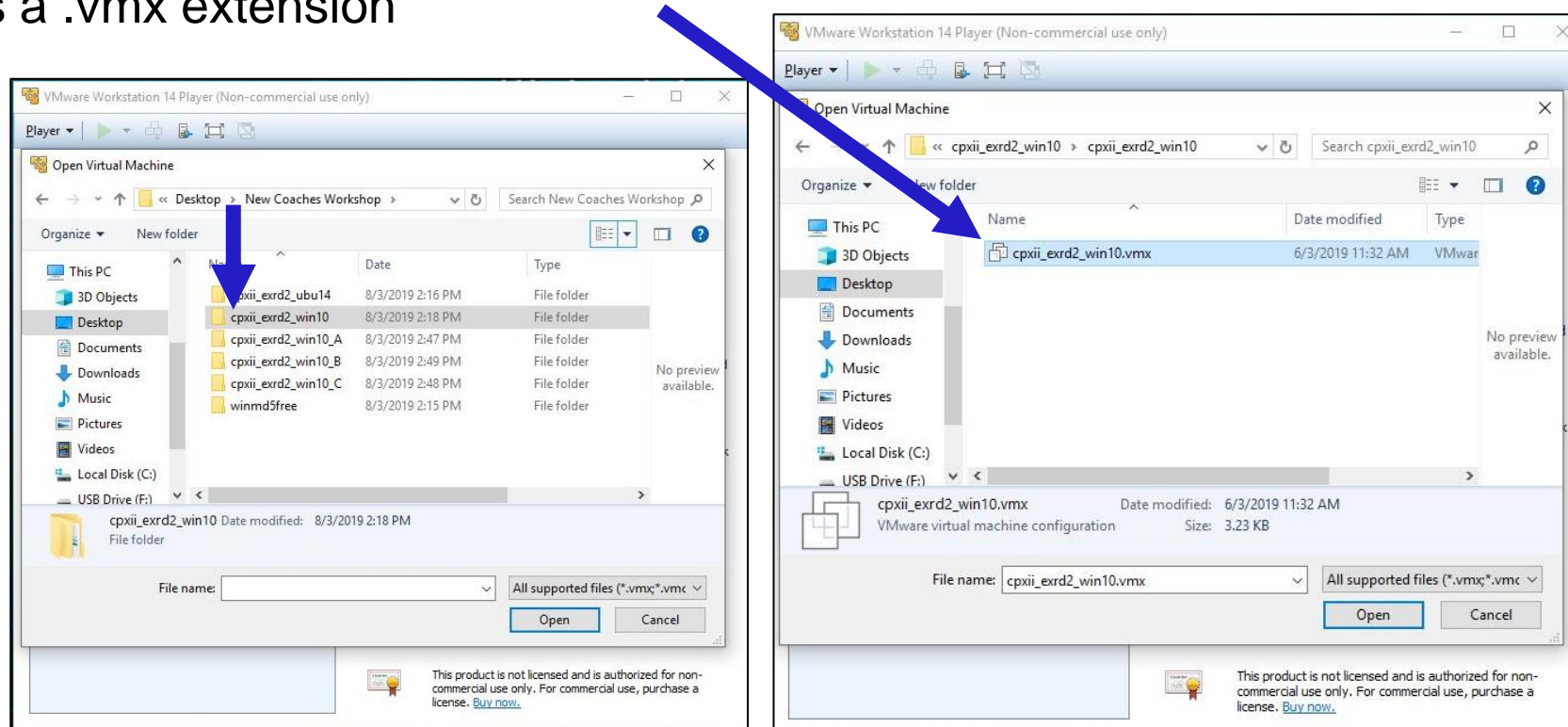
OPENING AN IMAGE

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



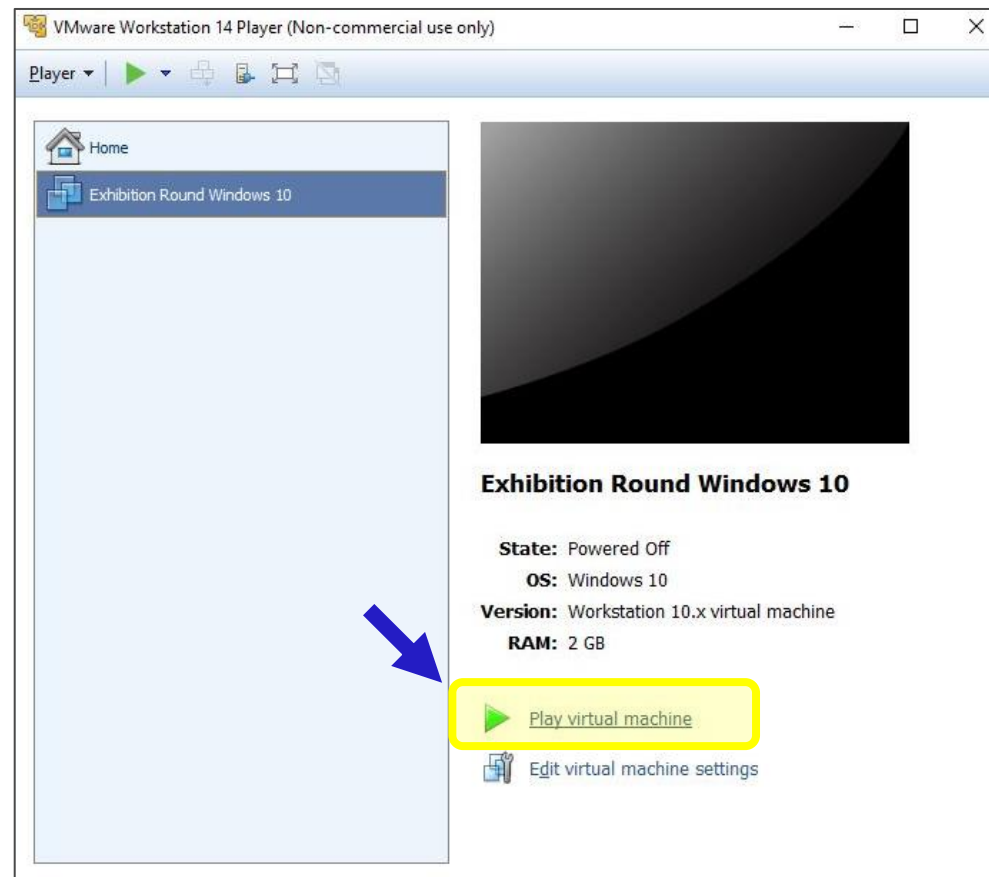
OPENING AN IMAGE

- Open the unzipped/extracted image folder.
 - It will **not** have a .zip extension
- Double click the file that appears in the window.
 - It has a .vmx extension



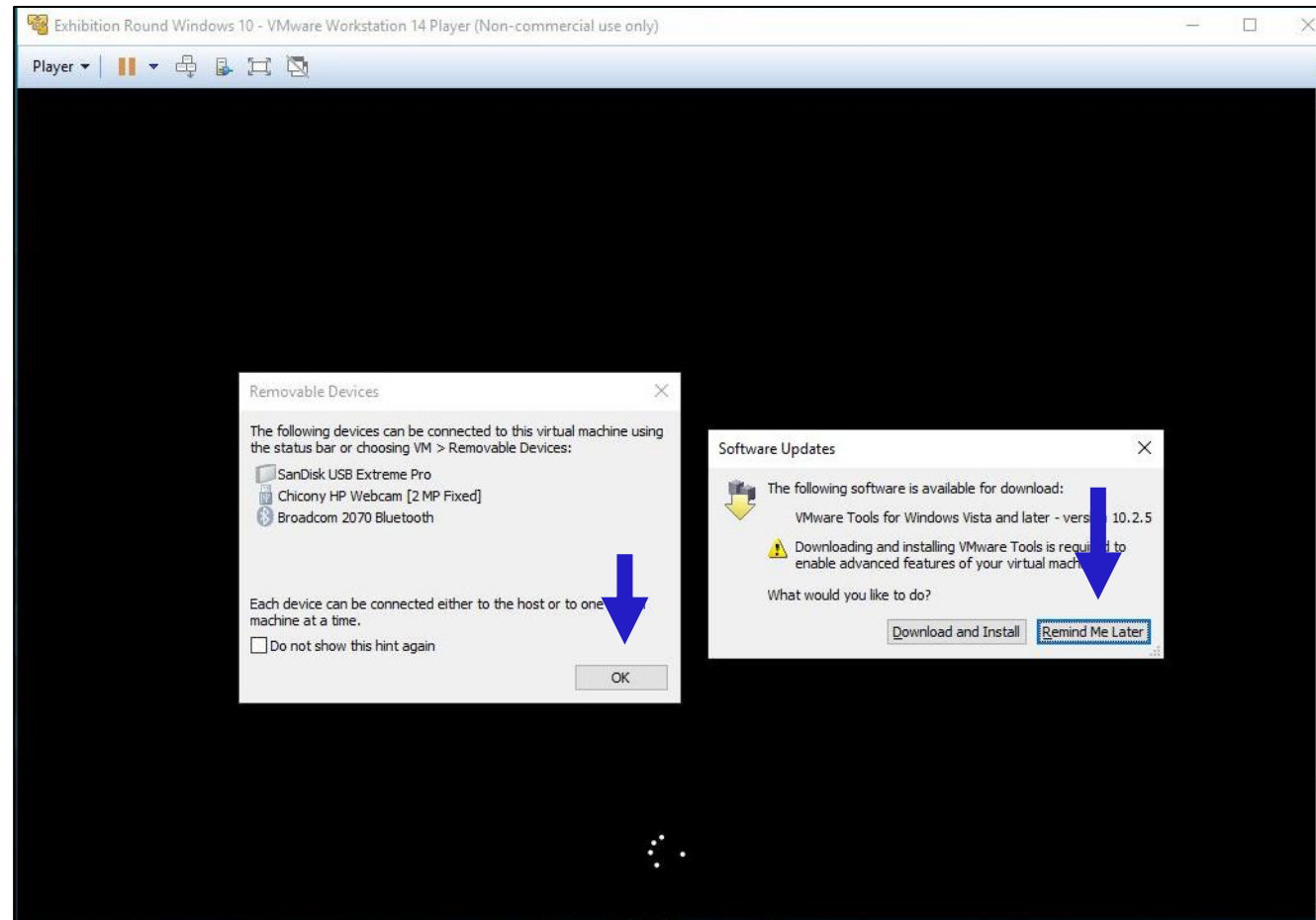
OPENING AN IMAGE

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



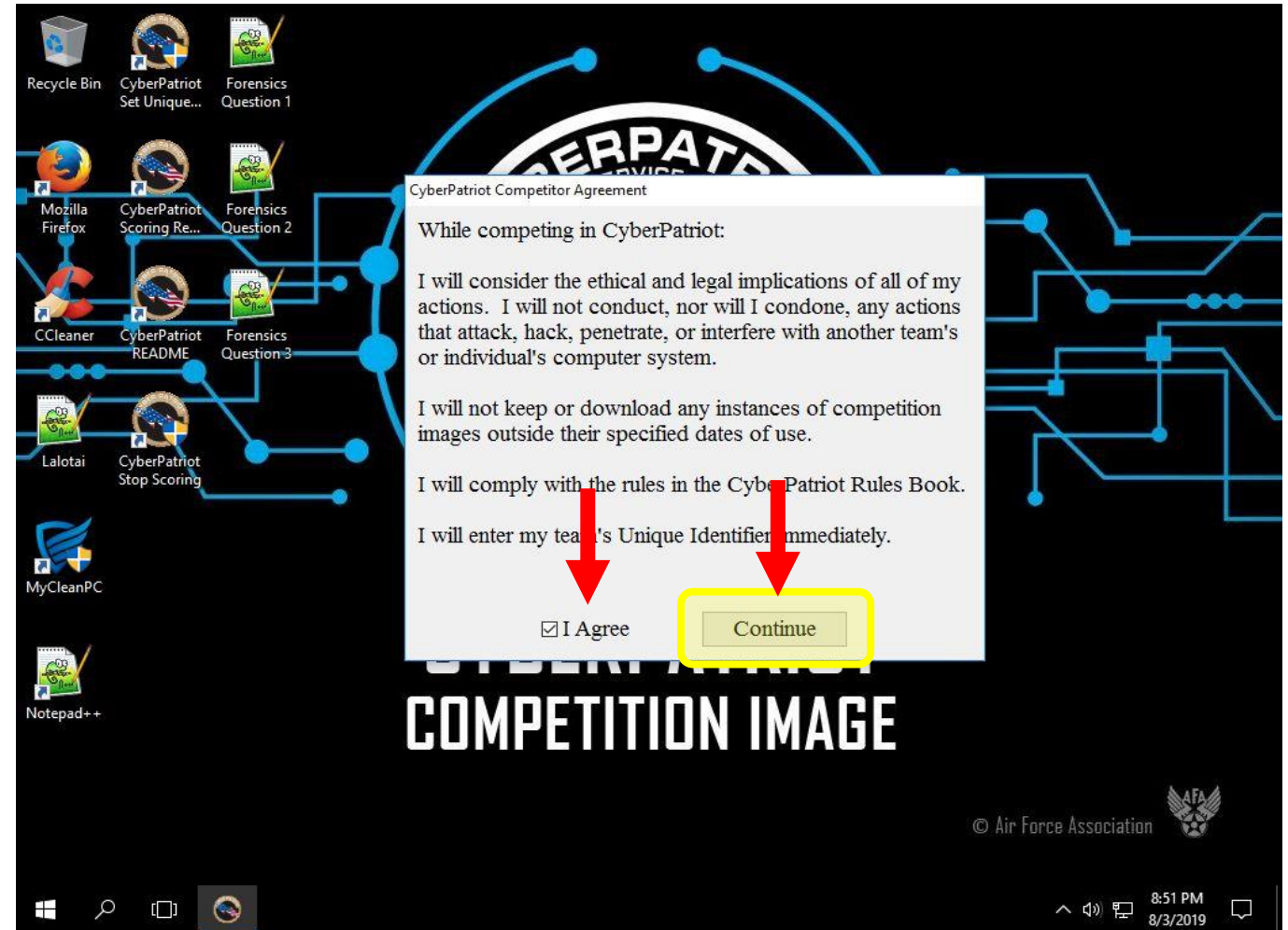
OPENING AN IMAGE

- 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'



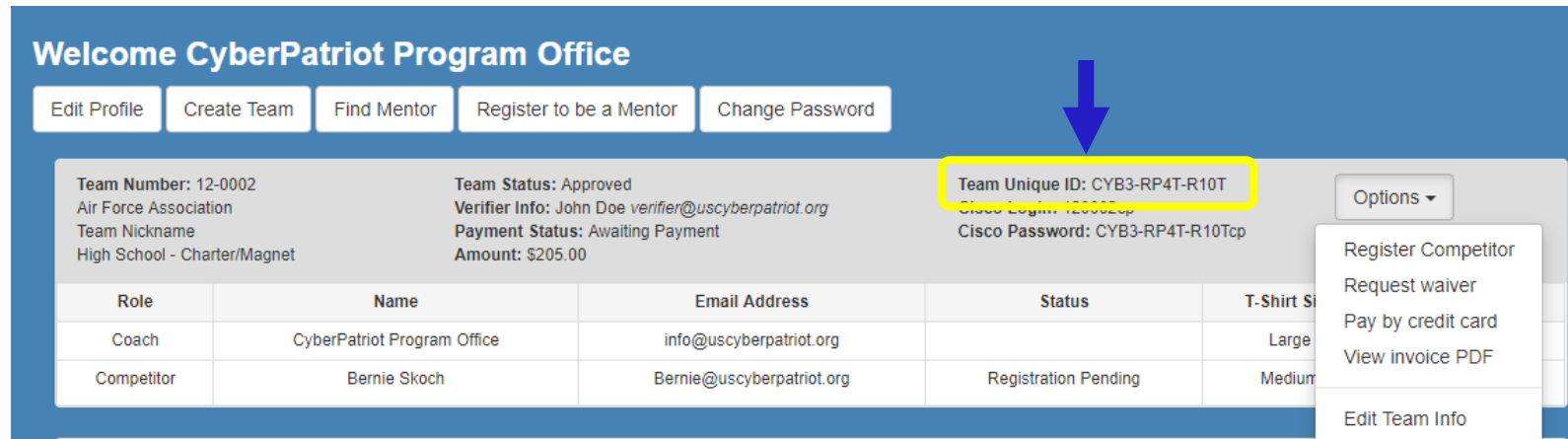
OPENING AN IMAGE

- Enter 12-character Unique ID.
 - Click 'Apply' and 'OK'



TEAM UNIQUE ID

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



The screenshot shows the 'Welcome CyberPatriot Program Office' dashboard. At the top, there are buttons for 'Edit Profile', 'Create Team', 'Find Mentor', 'Register to be a Mentor', and 'Change Password'. Below these, a blue arrow points to the 'Team Unique ID: CYB3-RP4T-R10T', which is highlighted with a yellow box. To the left of the UID, team details are listed: Team Number: 12-0002, Air Force Association, Team Nickname, High School - Charter/Magnet, Team Status: Approved, Verifier Info: John Doe verifier@uscyberpatriot.org, Payment Status: Awaiting Payment, Amount: \$205.00, Cisco Login: 120002cp, and Cisco Password: CYB3-RP4T-R10Tcp. To the right of the UID is an 'Options' dropdown menu with items: 'Register Competitor', 'Request waiver', 'Pay by credit card', 'View invoice PDF', and 'Edit Team Info'. Below the team information is a table with columns: Role, Name, Email Address, Status, and T-Shirt Size.

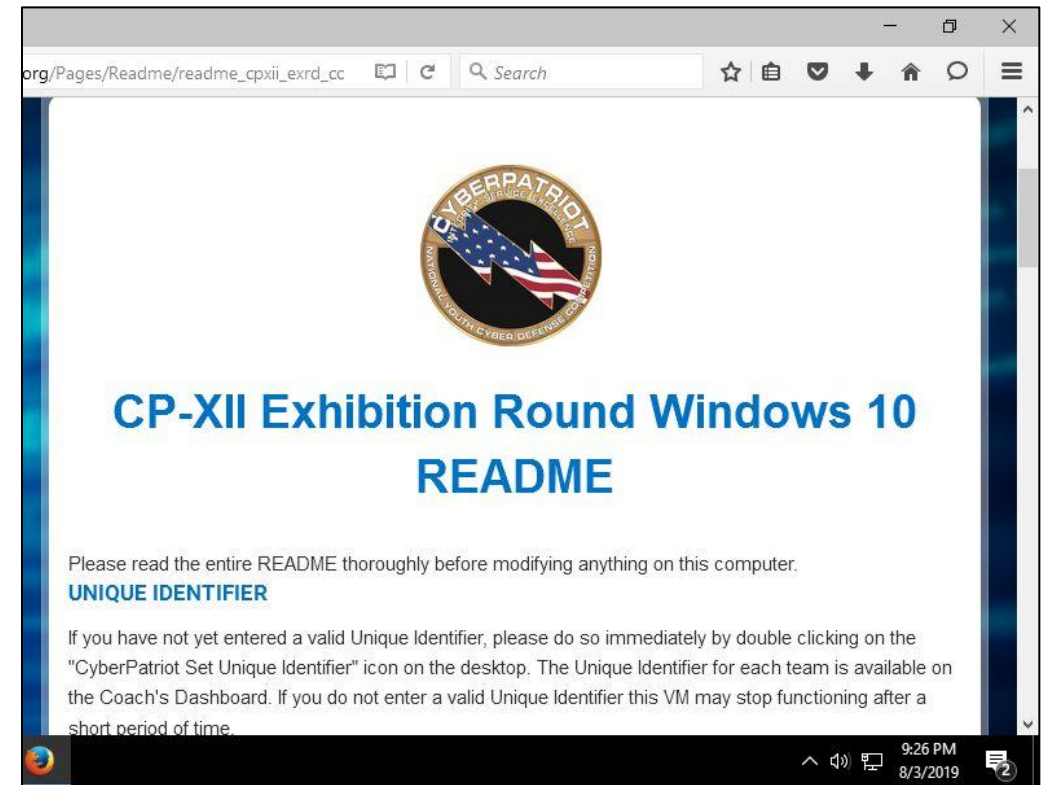
Role	Name	Email Address	Status	T-Shirt Size
Coach	CyberPatriot Program Office	info@uscyberpatriot.org		Large
Competitor	Bernie Skoch	Bernie@uscyberpatriot.org	Registration Pending	Medium

- 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



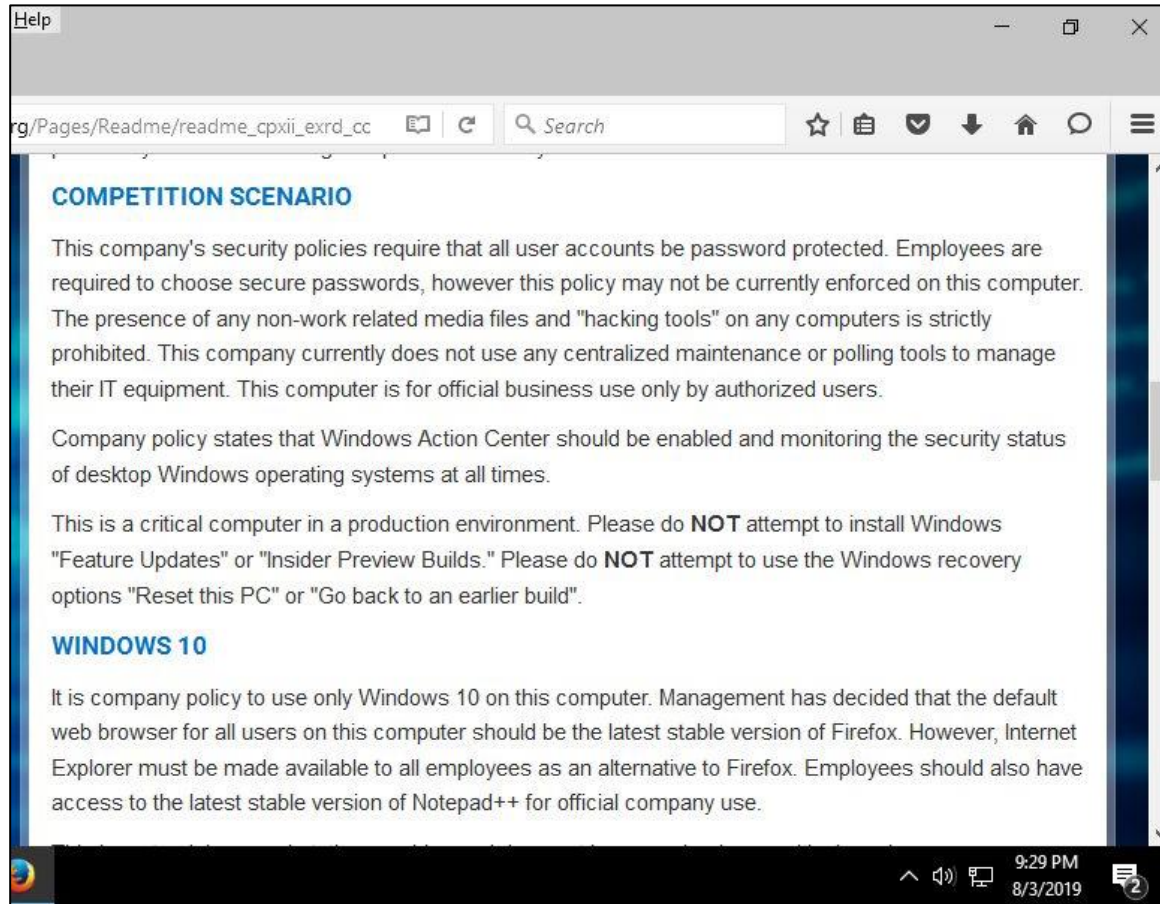
README FILE

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

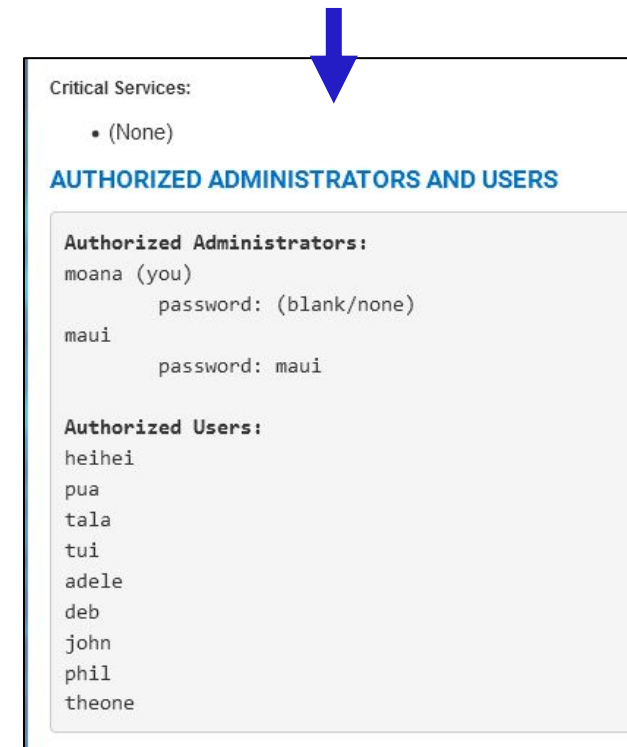


README FILE

- Example README file:



Authorized administrators
and users



SCORING REPORT

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





Exhibition Round Windows 10 Competition Image

Report Generated At: 2019/08/03 22:01:39 UTC

Approximate Image Running Time: 00:57:39

Approximate Team Running Time: 01:28:50

Current Team ID: **C93J-XZRR-2XB2**

0 out of 100 points received

Connection Status: Scoring Data Uploaded Successfully: No Errors Detected

Internet Connectivity Check: **OK**
CyberPatriot Connection Status: **OK**
CyberPatriot Score Upload Status: **OK**

0 penalties assessed, for a loss of 0 points:

0 out of 20 scored security issues fixed, for a gain of 0 points:

The CyberPatriot Competition System is the property of the Air Force Association and the University of Texas at San Antonio.

All rights reserved.



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

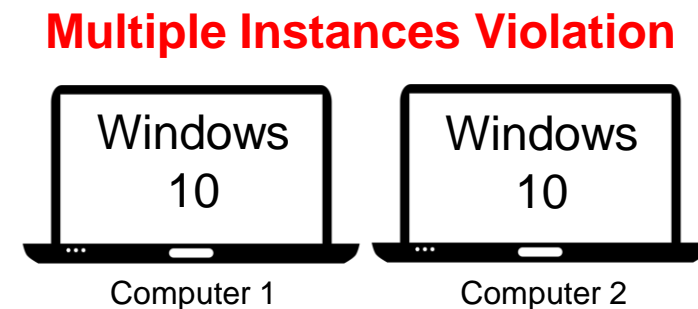
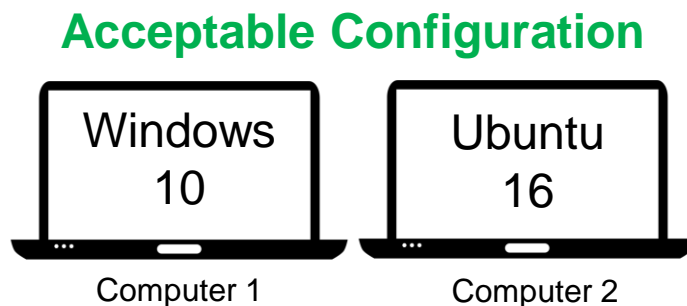
Shutdown and Stop Scoring Issues

- 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 six (6) 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



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 Force Association's

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CISCO NETACAD

CISCO NETWORKING ACADEMY

- The link to the Cisco Networking Academy (NetAcad) will be provided during the competition season
- Log in credentials shown on volunteer dashboard



The image shows a screenshot of the Cisco Networking Academy login page. At the top is the Cisco logo. Below it is a login form with a red border. The form contains two input fields: 'Login' and 'Password'. Below the 'Password' field is a checkbox labeled 'Stay signed in' and a link labeled 'Forgot Password?'. To the right of the 'Forgot Password?' link is a 'Log In' button.



CISCO LOGIN AND PASSWORD

Welcome CyberPatriot Program Office

Edit Profile Create Team Find Mentor Register to be a Mentor Change Password

Team Number: 12-0002 Team Status: Approved Team Unique ID: CYB3-RP4T-R10T
Air Force Association Verifier Info: John Doe verifier@uscyberpatriot.org
Team Nickname Payment Status: Awaiting Payment
High School - Charter/Magnet Amount: \$205.00

Cisco Login: 120002cp
Cisco Password: CYB3-RP4T-R10Tcp

Role	Name	Email Address	Status	T-Shirt Size
Coach	CyberPatriot Program Office	info@uscyberpatriot.org		Large
Competitor	Bernie Skoch	Bernie@uscyberpatriot.org	Registration Pending	Medium

Options ▼

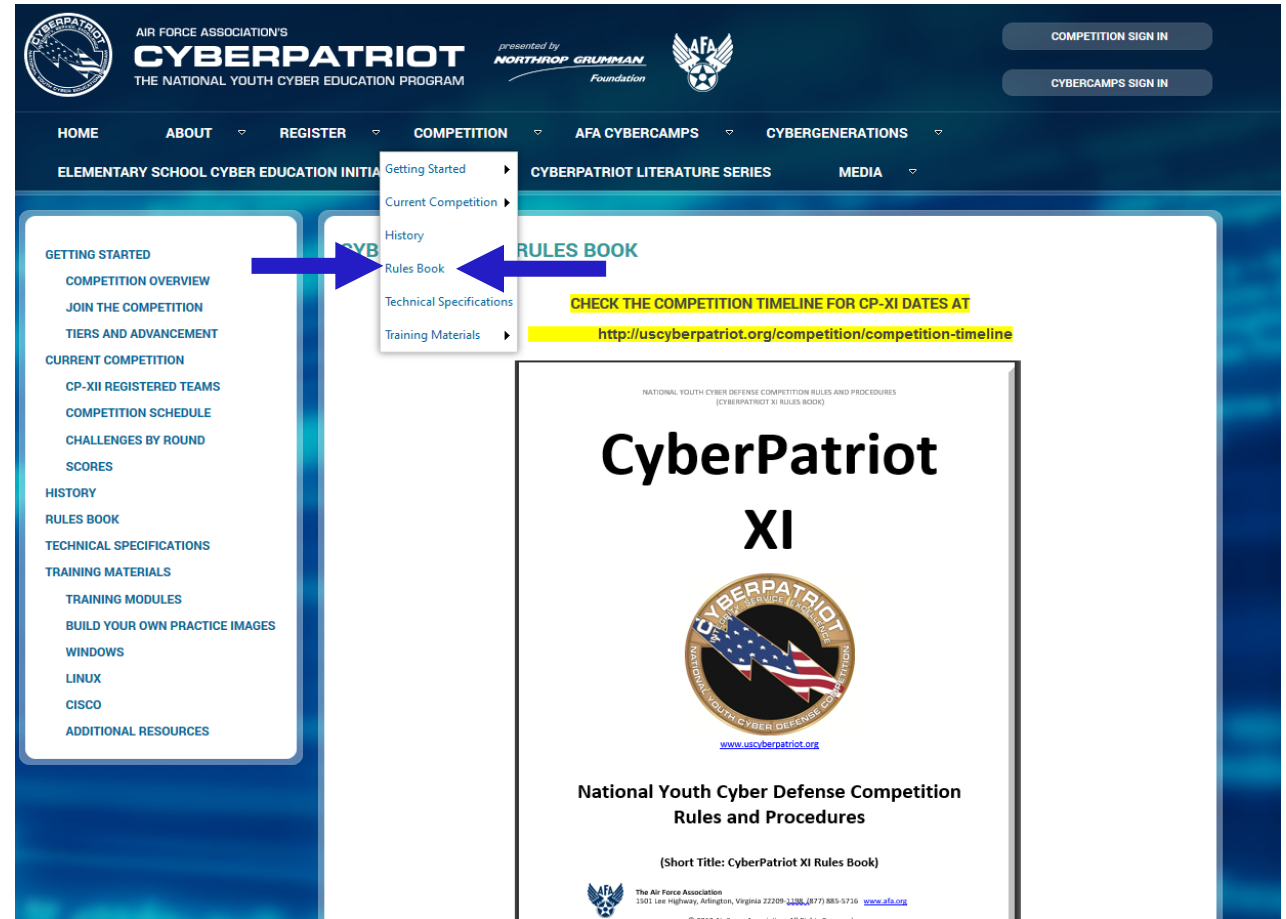
- Register Competitor
- Request waiver
- Pay by credit card
- View invoice PDF
- Edit Team Info

- Provides access to Cisco Networking academy for the Cisco challenges of competition rounds
- Log in credentials are specific to each team and mimic team number / Unique ID



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

Technical questions should be sent to:

cpoc@uscyberpatriot.org