



The Air & Space Forces Association's

CYBERPATRIOT

The National Youth Cyber Education Program

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THE AIR AND SPACE FORCES ASSOCIATION (AFA)



AFA is a non-profit, independent, professional military and aerospace education association. Our mission is to promote dominant U.S. Air and Space Forces as the foundation of a strong National Defense; to honor and support our Airmen, Guardians, and their Families; and to remember and respect our enduring Heritage.

To accomplish this, we:

- **EDUCATE** the public on the critical need for unrivaled aerospace power and promote aerospace and **STEM** education for a technically superior and professional workforce to ensure national security
- **ADVOCATE** and promote aerospace power to favorably shape policy and resourcing decisions to guarantee the strongest aerospace forces in the world;
- **SUPPORT** Airmen, Guardians, and the families of the Total Air Force and Space Force, including Active Duty, National Guard, Reserve, civilians, families, and members of the Civil Air Patrol.

CALL TO ACTION

The Need: STEM

3.5 MILLION

unfilled global STEM jobs
by the year 2025

2.0 MILLION

will remain unfilled due to difficulty finding
candidates with in-demand skills

700,000

Approximate number of unfilled cyber jobs in
U.S. in 2022

CyberPatriot Impact

91%

of CyberPatriot Alumni
are studying a STEM
field or working in a
STEM field

80%

of Alumni said
CyberPatriot positively
impacted their decision
to pursue STEM

144,000+

Estimated CyberPatriot Alumni now working in STEM

83,000+

Estimated CyberPatriot Alumni now working in
cybersecurity

CYBERPATRIOT AT A GLANCE



- **NOT “Hacker” training**
 - Cyber ethics discussions are important (and early) component in our curriculum
 - No teaching of “hacking” tools or techniques
 - Offensive activity forbidden in competition
- **NOT a recruiting tool for the Air Force, Dept. of Defense, or the Federal government.**
 - Focus is on building a strong national foundation for cyber skills throughout high schools and middle schools

SKILLS OFFERED



Technical Skills

- Computing and networking principles
 - Operating systems
 - Network topologies & cabling
- Foundational cyber security principles
 - Cyber and system vulnerabilities
 - Network security
 - Vulnerability remediation
 - Technical threats

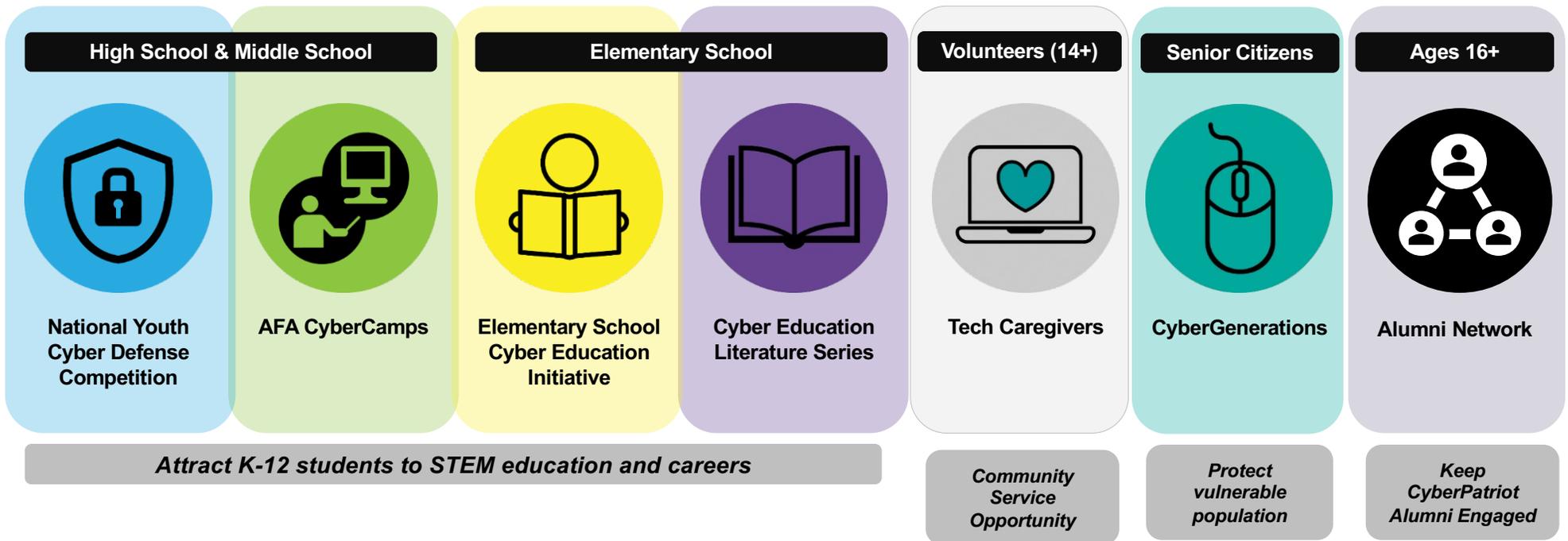


Non-Technical Skills

- Cyber ethics
- Leadership and teamwork
- Creative and analytical problem solving
- Non-technical cyber principles
 - “Netiquette”
 - Cyber safety
 - Cyber hygiene



CYBERPATRIOT PROGRAMS



AFA CYBERCAMPS



Summer camp program designed for students who are new to cybersecurity or who want to build on the cybersecurity skills they've learned through the cyber defense competition

Grades 6-12

REGISTRATION

Jan 1–May 1

Camps hosts register through CyberPatriot. Host organizations include:

- Schools
- Universities
- Companies
- Youth Organizations
- AFA Chapters, etc.



PREPARATION

- Review curriculum (provided by CyberPatriot)
- Recruit and register students
- Find instructors and volunteers
- Prepare facility and equipment



FACILITATION

June–August

- Monday – Friday
- 4 hours per day
- Mini-competition
- Held in-person or virtually



AFA CYBERCAMPS

Standard Camp

\$1,200

- Cyber Ethics
- Intro to Cybersecurity
- Intro to Virtual Machines
- Windows 10 Security
- Ubuntu 18 Security
- Mini-Competition



Advanced Camp

\$1,500

- Cyber Ethics
- Advanced Windows 10 Security
- Advanced Ubuntu 18 Security
- Cisco Networking
- Mini-Competition



Camp Registration Data

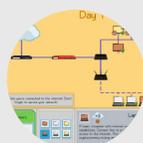


ELEMENTARY SCHOOL PROGRAMS

ELEMENTARY SCHOOL CYBER EDUCATION INITIATIVE

FREE interactive learning modules aimed at increasing student awareness of online safety and cybersecurity principles.

- Security Showdown: Teaches the importance of protecting personal information and the dangers of sharing information with strangers
- JEFF OS: Introduces the 'operating system' and basic cybersecurity skills
- Packet Protector: Introduces network security by having students create their own virtual networks while mining for cryptocurrency



CYBER EDUCATION LITERATURE SERIES

Children's books that pioneer the topic of cybersecurity for early elementary youth.

SARAH THE CYBER HERO: Published December 2017

Sarah has a chance to protect her town from a computer virus using the skills she learned in her elementary school cyber education lesson

BEN THE CYBER DEFENDER: Published March 2020

Follow a cybersecurity whiz on his epic adventure to save his cousin and friends from impending cyber disaster



CYBER SAFETY INITIATIVES

CYBERGENERATIONS: THE SENIOR CITIZEN'S CYBER SAFETY INITIATIVE

FREE program designed to equip senior citizens with the knowledge needed to stay protected from cybercrimes, fraud, and scams

- Topics include:
 - Password Management
 - Online Threats
 - Marketing & Fraud Scams
 - Social Media Awareness
 - Victim Support Resources
- Host organizations request workshop resources (slide decks and guides)
- Virtual workshop available on website



TECH CAREGIVER

FREE certification program that allows student and adult volunteers to offer cybersecurity support to vulnerable populations.

Self-paced PDF training program for individuals to complete at their own pace. Topics include:

- Password Management
- Online Threats
- Marketing & Fraud Scams
- Social Media Awareness
- Victim Support Resources

Certified Tech Caregivers encouraged to give back to community by hosting CyberGenerations Workshops or having one-on-one sessions with senior citizens in need of cybersecurity help.



CYBERPATRIOT ALUMNI NETWORK



Private LinkedIn Group created to connect CyberPatriot participants with each other and with STEM opportunities available through program sponsors and supporters

Ages 16+



- All requests to join reviewed by CP staff
- All posts to page reviewed by CP staff
- Must be 16+ years of age to join



- 800 members (since Aug '22)
- Notable alumni schools
 - Harvard
 - Yale
 - Stanford
 - Warton School of Business
 - Purdue University
 - University of California (all campuses)
 - University of Texas – San Antonio
- Graduates employed companies like:
 - Apple
 - Google
 - Amazon
 - Mellon BNY



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

NATIONAL YOUTH CYBER DEFENSE COMPETITION

Team Roles Explained

COACH

- Adult leader – teacher, parent, youth group advisor, etc.
- Verified by organization administrator
- Responsible for registering team and team safety
- Must be present during competition rounds

TECHNICAL MENTOR

- Technically savvy volunteer who supports local teams
- Flexible time commitment. Volunteers as much or a little as desired.
- Experienced with Windows, Linux, and/or Cisco Networking
- Must complete background check

TEAM ASSISTANT

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

COMPETITOR

- Student in grades 6-12
- No prior cyber experience required
- 2-6 competitors per team

NATIONAL YOUTH CYBER DEFENSE COMPETITION

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

\$225 per team
Waivers for Title I
and all-girl teams



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

FREE
Fees Waived



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

\$175 per team
Waivers for Title I
and all-girl teams



NATIONAL YOUTH CYBER DEFENSE COMPETITION

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

NATIONAL YOUTH CYBER DEFENSE COMPETITION

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

PROGRAM EFFECTIVENESS

75%

of current
CyberPatriot
students plan to
pursue STEM
education and/or
careers

Compared to 20% national average

91%

of CyberPatriot
Alumni are
studying a STEM
field or working in
a STEM field

85%

of CyberPatriot
Alumni who are
currently employed
are working in the
Public or Private
Sector

Date Source: 2022 CyberPatriot Alumni Survey

80%

of respondents
said CyberPatriot
positively
impacted their
decision to pursue
STEM

REGISTRATION DEADLINES

Important registration dates and deadlines:

DATE	TASK
April 1, 2024	Registration Opens 20% early-bird discount offered
July 1, 2024	End of 20% early-bird discount
October 2, 2024	Team Registration Deadline This is the last day to register a new team. Competitors do not need to be registered at this point.
October 23, 2024	Competitor Registration Deadline This is the last day to add competitors to a roster or move competitors between rosters.
November 16, 2024	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
 - Visit www.uscyberpatriot.org
 - Click *Register* → *Team or Volunteer Registration*
 - Complete and submit form
 - Log in with username / password

A screenshot of the 'CYBERPATRIOT VOLUNTEER REGISTRATION' form. The form is white with a black border. It contains several input fields and checkboxes. The fields are: First Name, Last Name, Phone Number, Phone Ext., Email Address, Password, Confirm Password, Password Question, Password Answer, How you found out? (with a dropdown menu), T-Shirt size (with a dropdown menu), Agree to media release terms?, Agree to competition terms?, and How much is: (with a CAPTCHA). The form is titled 'CYBERPATRIOT VOLUNTEER REGISTRATION' and includes a note: 'Fields marked with an * (asterisk) are required.' The 'Register' button is at the bottom.

Top right corner of homepage

COACH / TEAM REGISTRATION

- Registering a team from your account automatically assigns you as the team coach
- Form must be completed for each individual team (up to 5)
 - Click *Create Team*
 - Complete registration form
 - Provide verification official information



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

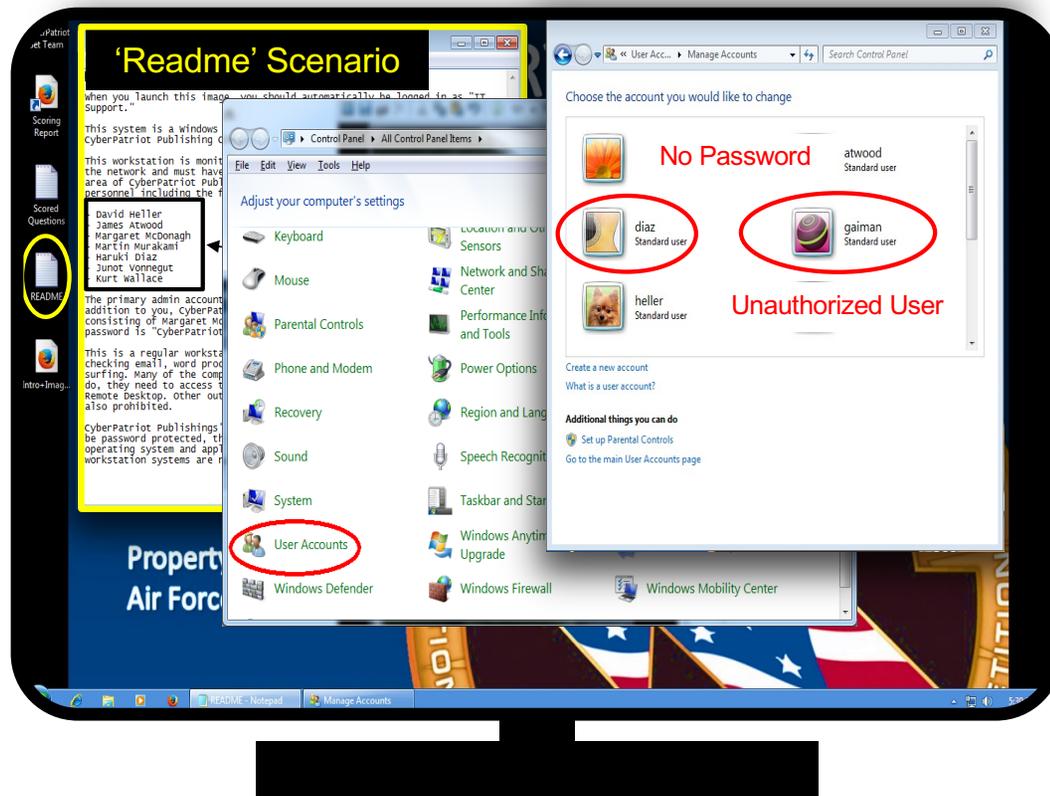
The Verification Official should be a school administrator, organization executive or unit commander or deputy commander. Coaches CANNOT act as their own verification official.

Full Name

Title

Email Address

NATIONAL YOUTH CYBER DEFENSE COMPETITION



Competition “Image”

Virtual operating system purposely filled with cybersecurity vulnerabilities that teams must find and fix within an allotted time.

- Earn (or lose) points for changes
- Windows, Server, Ubuntu, Debian images
- Accompanied by Cisco NetAcad quizzes and packet tracer exercises

Host machine must meet minimum hardware and software requirements

DEMO SOFTWARE



- Allow presenters to give potential participants a "hands-on" experience
 - No active image required
 - No internet required
 - Useful at conferences, meetings, and classrooms

CyberPatriot Demo Order Form

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

CYBERPATRIOT SPONSORS

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QUESTIONS?

info@uscyberpatriot.org

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