

Air Force Association's CyberPatriot

The National High School Cyber Defense Competition

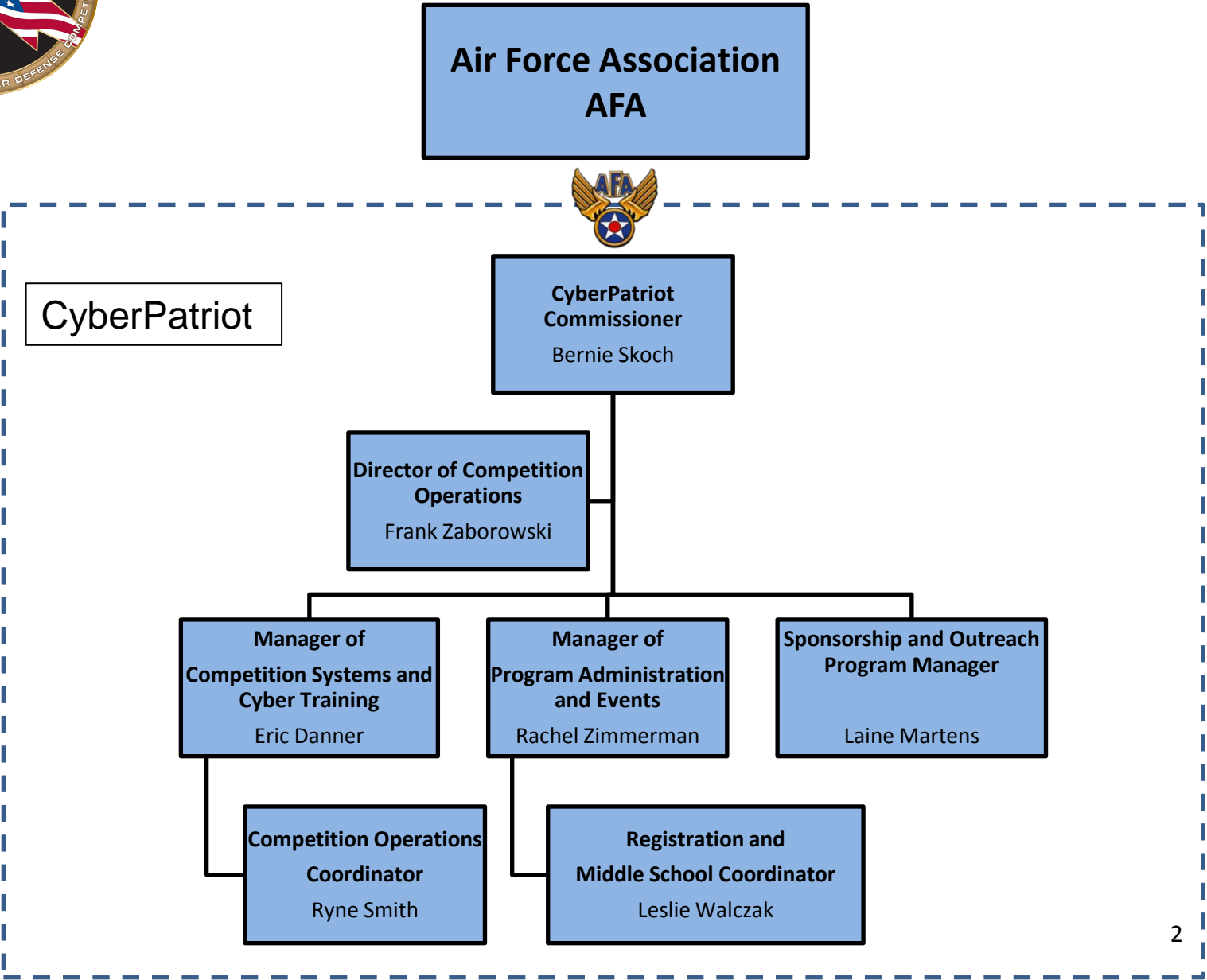


Online
Coaches' Meetings
April 16 & 17, 2013





Organization Chart





Coaches' Role

The Coach is the Backbone of the Competition

No team may compete in CyberPatriot until there is first a responsible adult willing to accept the following responsibilities.

(1) Competitor Protection. The coach is responsible for the protection and safety of his team's competitors while involved in CyberPatriot activities. Access to minor students in a way that protects them, respects parental prerogatives, and follows legal statutes (e.g., Children's Internet Protection Act), is the coach's responsibility. As the "gate keeper" for contact with the competitors, the coach is accountable for the interaction of "mentors or technical advisors" to the competitors.

(2) Competition Integrity. Ensuring the integrity of the competition is essential to the fairness of the competition. Once the competition begins, the coach must ensure that their competitors receive no assistance, except between competitors on the same team. The coach upholds the guiding and operating principles of the competition at the team level.

(3) Official Point of Contact. The coach is the official point of contact for a team. Official CyberPatriot competition and other correspondence is provided to coaches for further dissemination to their teams. It is key during competition that coaches monitor their e-mail for up-to-date information that competitors will not receive directly. The role of official point of contact cannot be delegated to the mentor.

(4) Abide by the CyberPatriot Coaches' Agreement.



Rules of the Road

This WebEx is provided by Cisco Systems



Meeting is based around presentation.

Presenters will use Audio

Participants will use Chat

NO private chat rooms

Hold questions until the end, so everyone can concentrate on brief

**Presentation will be posted at www.uscyberpatriot.org under the CyberPatriot VI tab/
CyberPatriot VI Documents**

CyberPatriot



Registration



Registration

**Registration
Tab**

Registered Coach Sign In

The screenshot shows the CyberPatriot website interface. A red arrow points from the 'Registration Tab' text to the 'Register here for CyberPatriot VI' link in the navigation bar. Another red arrow points from the 'Registered Coach Sign In' text to the 'Sign In' button in the top right corner. The website header includes the Air Force Association's CyberPatriot logo, the title 'National High School Cyber Defense Competition', and the presenter 'NORTHROP GRUMMAN Foundation'. The navigation bar contains links for Home, About, Documentation, Register here for CyberPatriot VI, and How You Fit. The main content area features a description of the competition, a Twitter follow button, and a section for an online coaches meeting. A sidebar on the right contains a 'CyberPatriot VI Registration' section with a map and a 'Join our mailing list below!' section with an email icon.

Air Force Association's
CYBERPATRIOT
National High School Cyber Defense Competition
presented by **NORTHROP GRUMMAN** Foundation

Home About Documentation **Register here for CyberPatriot VI** How You Fit

CyberPatriot is the premiere national high school cyber defense competition created by the Air Force Association to inspire high school students toward careers in cybersecurity or other science, technology, engineering, and mathematics (STEM) disciplines critical to our nation's future.

Are you a perspective coach or mentor?
Register for our online meeting this week!

CyberPatriot Online Coaches Meeting - April 16-17.
(3 Duplicate Sessions)

* 1. What is your email address?

* 2. What division are you interested in coaching?

CyberPatriot VI Registration

Are you local schools, squadrons and units registered?
Find out Below...
Map Version

Text Version

Join our mailing list below!



Registration

▪ Mentor Registration

Mentor Submits Registration

- All Mentors must be registered to be accredited as part of a team by CyberPatriot Office.

CyberPatriot
Office Initiates
Background
Check

Background Check is Approved

- Mentor is placed on the Mentor list available to coaches, within the team site.

Mentor is Linked with Team

- Mentors approve or decline mentoring requests sent from local coaches.
- Mentors already working with teams can email L.walczak@uscyberpatriot.org to be linked with their teams in our system.
- If you would like to find a team in your area to work with, visit our current team registrations at: <http://www.uscyberpatriot.org/Documents/CyberPatriot%20VI%20Current.pdf>. Please then identify a few teams in your area that you would like to work with, and email them to Leslie Walczak at L.walczak@uscyberpatriot.org.





Registration

▪ Coach Registration

Coach Registers

- Each team must have a different coach. No person can coach more than one team.



School/Squadron Official Verifies

- Email info@uscyberpatriot.org if your official needs us to resend the verification email.



CyberPatriot Program Office Approves

- Once your team is approved, you will be sent a link to submit payment and/or set up your **team site.**



Coach registers competitors and selects a Mentor on his or her **team site.**





Registration

Team Site:

- Created when a coach is approved by CP Office and registration fee is paid
 - Coach logs into www.uscyberpatriot.org.
 - Find team site under the “My Teams” area on the front page
 - If a site does not appear, payment or approval has not be accomplished

3. Which meeting are you interested in attending?

Create your free online surveys with SurveyMonkey, the world's leading questionnaire tool.

CyberPatriot V Photos

CyberPatriot V Competitors' Dinner Photos Are Now Available!

Click any of the photos below to see all the food, fun, and prizes from the first night of the CyberPatriot V National Finals Competition.

CyberSentinel Archives

The National Finals Competition Special Edition is now online

For official CyberPatriot apparel visit the Air Force Association's Hangar Store at www.afa.org/store

Visit the "Hangar Store" for CyberPatriot logo'd apparel.

"Have you got what it takes?"

My Teams

08-0419 Team Site

Team Site Link



Registration

Team Site Tasks

- **Student Registration:**

Coach enters student information on team website.
(Teams are limited to 10 students)

Student receives an email with login credentials and completes registration information.

Parent/guardian receives email and approves or declines.

Once parent/guardian approves, the student is fully registered.

- **Mentor Selection:**

- Teams can have multiple mentors
- Mentors have the right to approve or decline a coaches request to participate with teams

Click the "Request Mentor" link in the Roster Box on your Team Site

A page will appear listing approved CyberPatriot Mentors and the city and state of their home and/or work addresses .

Choose a Mentor and click "Request to Join My Team"

An email is sent to the Mentor asking him or her to approve or decline your mentoring request.

If the Mentor approves, he or she will be connected to your team.



Registration



Documents

Shared Documents

Lists

Calendar
Tasks

Discussions

Team Discussion

Sites

People and Groups

CyberPatriot > CP6 > teams > 06-0419 Team Site

Coach, enter the information for your students here. You may have a minimum of 2 students per team and a maximum of 10 (5 of those 10 will be alternates in case any of the original 5 cannot compete or if you want to rotate the members of the competition team).

Student Information

First Name *

Last Name *

Email Address: *

T-Shirt Size: *

[Register Competitor](#)

[Reset](#)



There are currently no favorite links to display. To add a new link, click "Add new link" below.

[Add new link](#)

Team Roster

There are no items to show in this view.

[Request Mentor](#)

Register Competitors

Find a Mentor



Registration

- Coaches shall be verified before their team can participate in CyberPatriot – ***Competitor Protection***.
- Coaches require verification.
- Mentors shall pass a background check by the CyberPatriot Program Office –

Competitor Protection

CyberPatriot



Competition Overview



Two Competition Divisions



Open Division

- Open to any high school
 - Public, private, parochial, magnet, home-school
- Highly valued CyberPatriot competition attributes:
 - Technical/STEM education
 - Career preparation/development
 - Teamwork
 - Goal-achievement



All Service Division

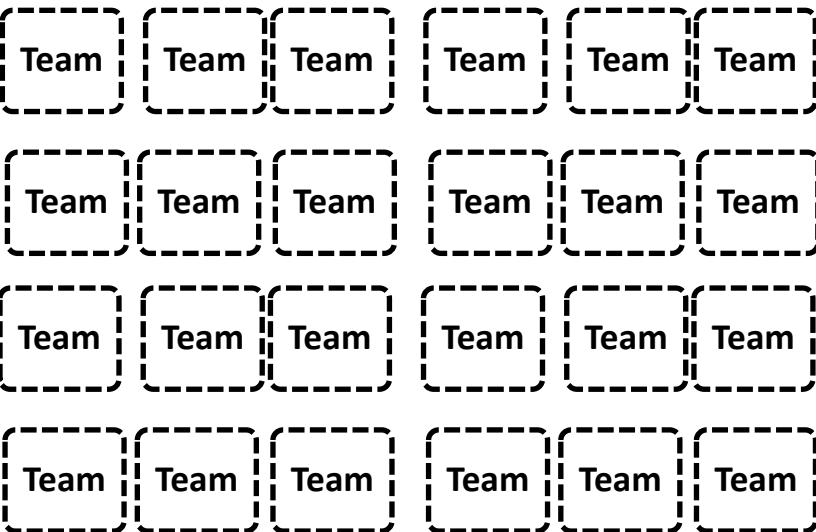
- Open to any JROTC unit
 - Army, Navy, Air Force, Marine Corps
- Open to Civil Air Patrol cadet squadrons and composite squadrons
- Open to Naval Sea Cadet Corps units
- Highly valued CyberPatriot competition attributes:
 - Teamwork
 - Goal-achievement
 - Leadership





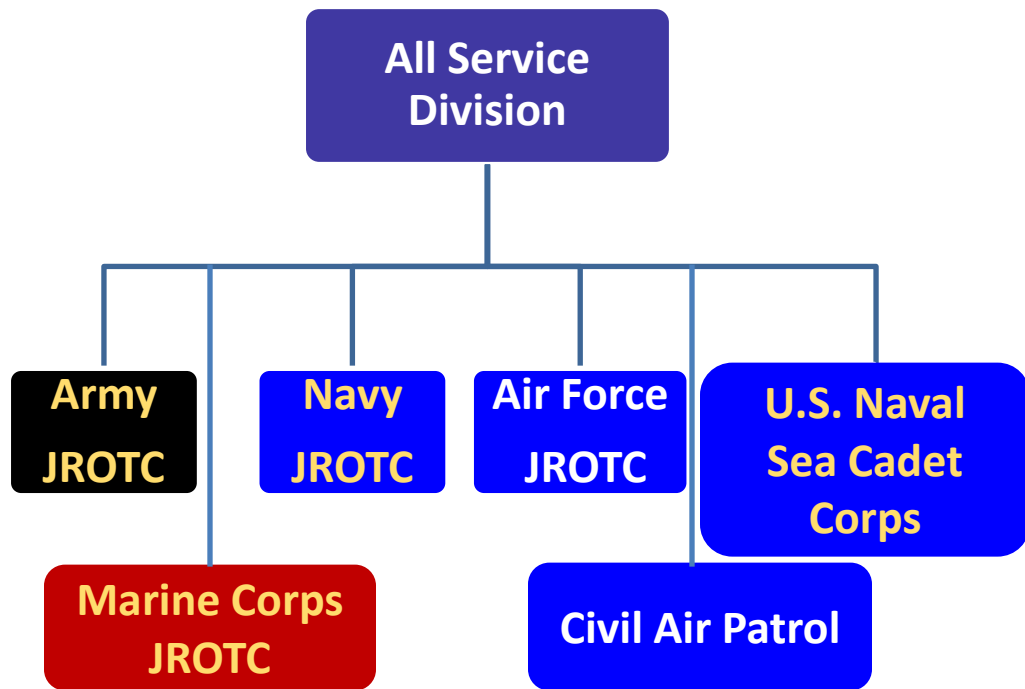
Competition Organization

Open Division



Open Division teams compete against each other with no subdivisions.

All Service Division



All Service Division teams compete within their respective categories.

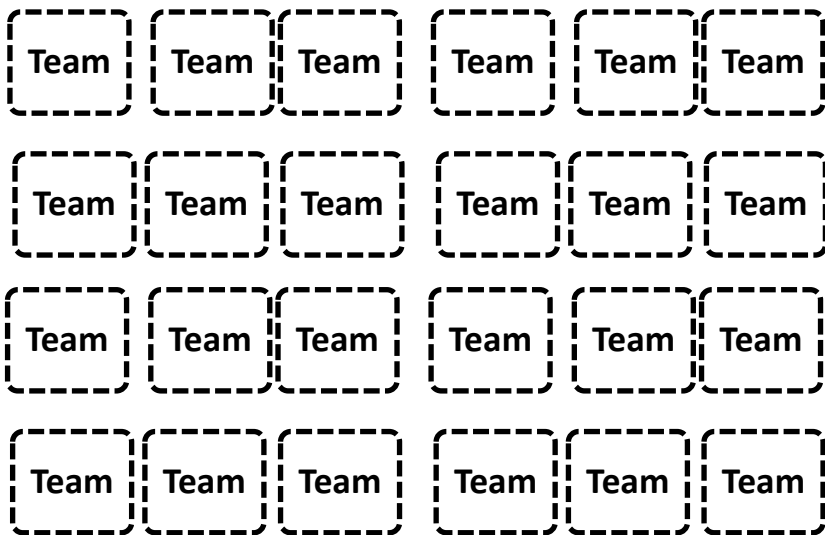


Semifinals

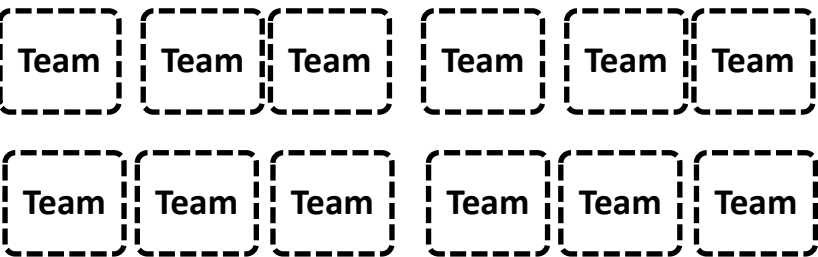
36 Teams

**Open
Division**

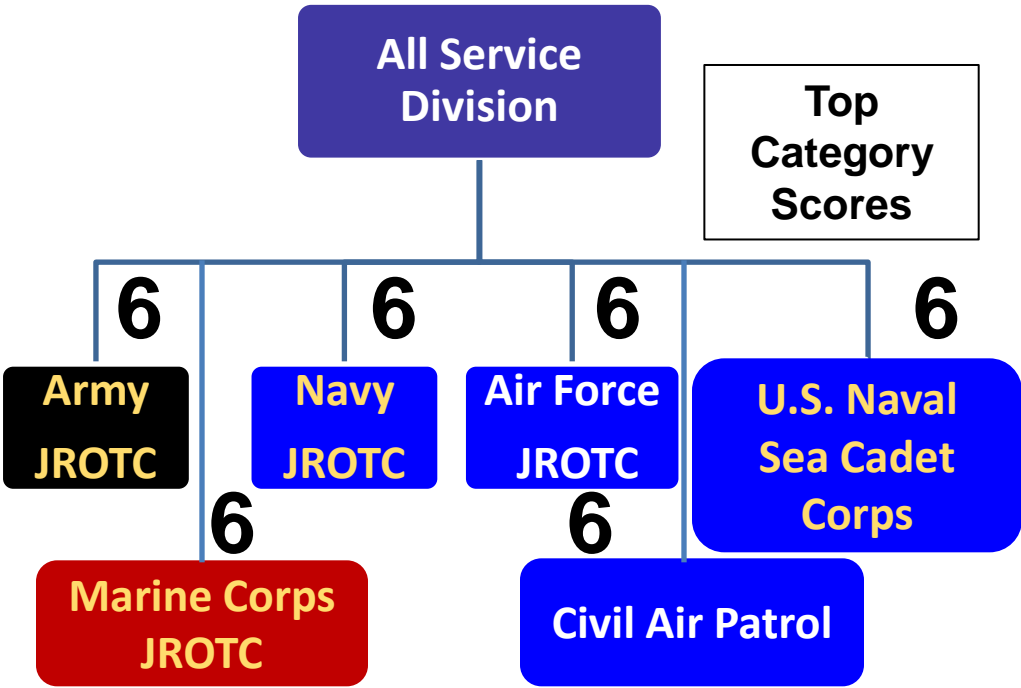
**Top Overall
Scores**



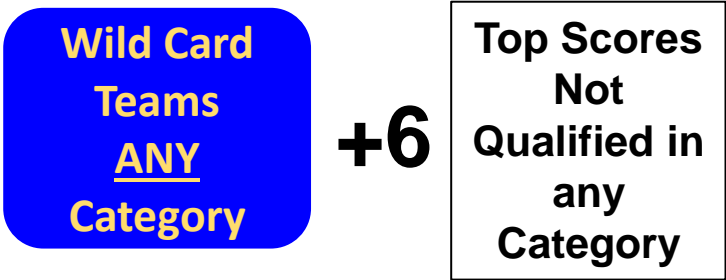
Open Division teams compete against each other with no subdivisions.



42 Teams (36+6)



All Service Division teams compete within their respective categories.

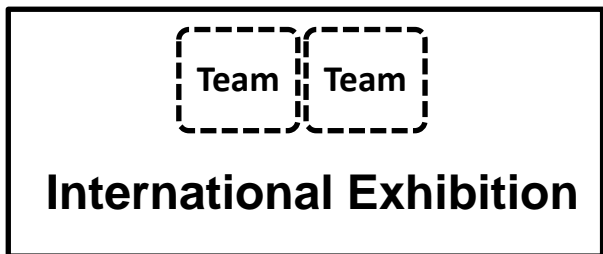
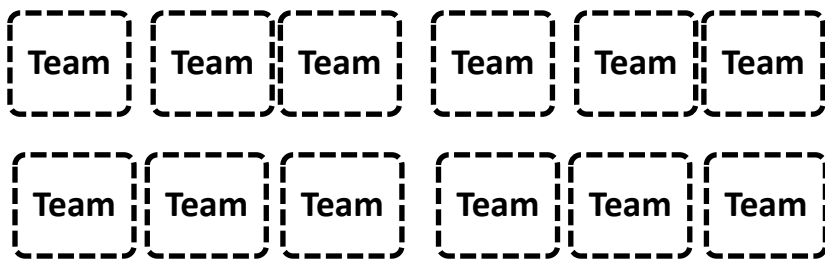




The National Finals Competition

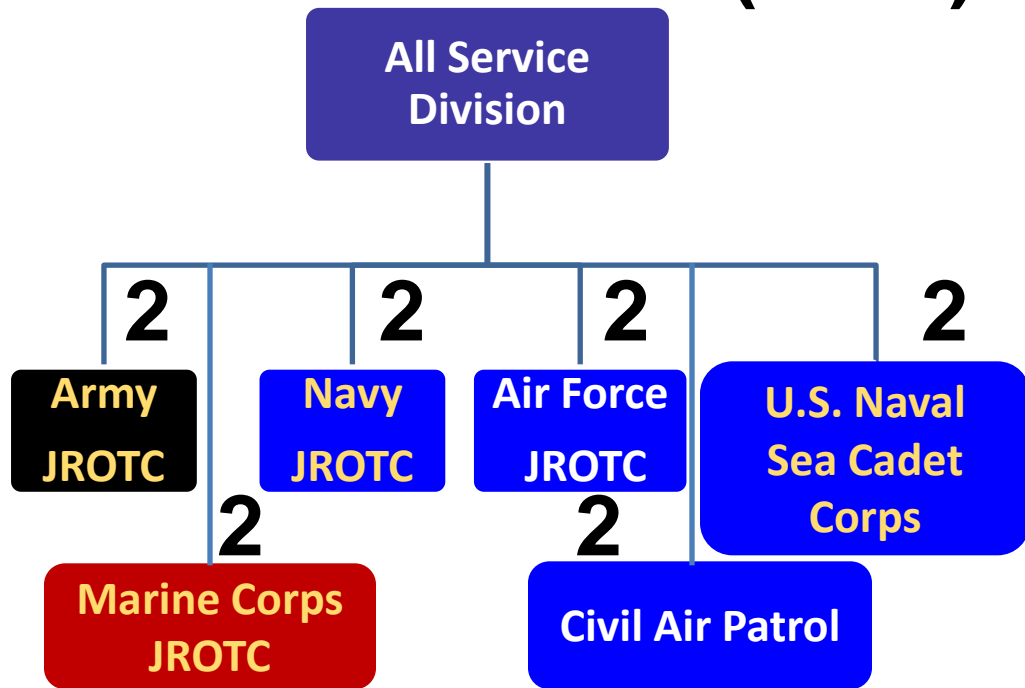
12 Teams

**Open
Division**



Open Division teams compete against each other with no subdivisions.

14 Teams (12+2)



All Service Division teams compete within their respective categories.

**Wild Card
Teams**

+2



Team Structure



- **Coach** (Adult Leader): Supervises, chaperones team. Usually a teacher.
- **Mentor** (Technical Advisor)(Optional): Particularly useful when coach not cyber-savvy. Helps teach cyber concepts. AFA helps find them.
- **Competitors**: 2-5 students compete. Up to 10 on roster., 9th-12th grade, minimum age 13. Up to 5 alternates/substitutes.



- **Team Captain**: Coach selects from the competitors to head the team during competition.

National Finals Competition teams consist of six competitors (five primary and one alternate), one coach, and one chaperone.



Competition Communications

- **E-Mail is the official communications medium for CyberPatriot: info@uscyberpatriot.org**

- E-mail via Constant Contact – Spam Filters
- Correct coaches' e-mail addresses are critical
- We do not use mentors' e-mail addresses
- ***Recommend PERSONAL e-mail for CP correspondence***



Web site

- **Surveys**– Before Round

- **Web Site /Facebook for notices**
www.uscyberpatriot.org



Facebook

CyberPatriot



Exhibition Round



Competition Checklist

Competition Period
begins when
image is **opened** in
VMWare Player.

Competition Period
ends when the
image is **closed**.

Competition Checklist

Before the start of the Round

- ☐ **ARRANGE INTERNET BACK-UP PLAN.** Image must connect with Internet to report scores. Possible back-up means: Public Library, Private Residence. You may request ATT Air Cards from the CyberPatriot Program Office.
- ☐ **INSTALL [WINMD5](#).** Refer to the [WinMD5 Installation instructions](#) for assistance.
- ☐ **INSTALL [VMWARE PLAYER 5.0](#).** Refer to the [VMware Installation instructions](#) for assistance.
- ☐ **INSTALL [7-ZIP](#) OR [WINZIP](#).** Refer to the [7-Zip installation instructions](#) for assistance.
- ☐ **DOWNLOAD THE IMAGE(S).** Refer to the Pre-Competition Email for download URLs.
- ☐ **VERIFY THE CHECKSUM of the image(s).**

During the Round

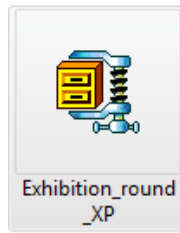
- ☐ **READ THE INSTRUCTIONS.** (Most trouble calls are caused by competitors not reading instructions.)
- ☐ **DECOMPRESS THE IMAGE(S).** Use the password(s) provided in the Start-Ex E-mail.
- ☐ **READ THE [README.TXT](#) FILE.** This file contains a description of the image, and tells teams where to start. It can be found on the desktop of the image.
- ☐ **OPEN THE IMAGE(S).** Refer to the [Image Opening Instructions](#) for assistance. Time starts when image background is displayed in VMWare Player
- ☐ **CLOSE IMAGE(S) and Secure.** Scoring and time will stop when the image is closed.

Post Competition

- ☐ **[DO NOT OPEN IMAGE](#)** unless requested by the CyberPatriot Program Office. Images opened or modified after the competition period will be considered tampered images.
- ☐ **[DELETE IMAGE\(S\)](#)** per instructions in the Competition E-Mails. Teams pending appeals or inquiries shall not delete the images until requested by the CyberPatriot Program Office.



**Competition
Virtual
Machine (VM)
Image Created**



**VM Image
Zipped and
Password
Protected**

The Cloud

**Zipped
VM
Image
Posted**

Program Office



**Pre-Competition
E-Mail
(Download URL/Instructions)**

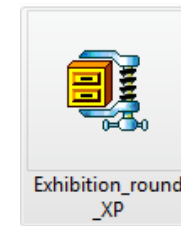
Coach

Team

**VM Image Opened in
VMWARE Player
(Competition Begins)**

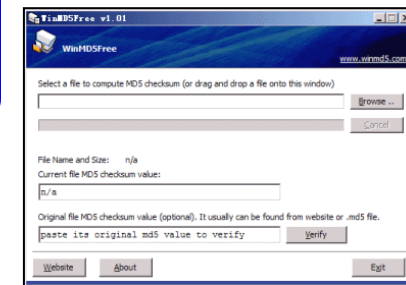


**Team Downloads
Zipped VM Image**



**Zipped VM Image
Verified with
Checksum
(MD5 Program)**

MD5 Sample



**Start-Ex / Start Competition
E-Mail
(Password)**

Coach

**VM Image
Unzipped with
Password**

Enter Password XXXXXXXX

CyberPatriot Competition System

Treat as Examination Material

Control



Delete

**Property
of the**

Air Force Association

The CyberPatriot Competition System is the
sole property of the Air Force Association.
All rights reserved.

Do not distribute without permission of the Air Force Association.



CyberPatriot Competition System

CCS Image Status and Scoring Report

CyberPatriot Round 1 Image

Report Generated At: 10/17/12 18:58:19 Coordinated Universal Time

Approximate Running Time: 16:29:04

Current Team ID: 869F6E18F

70 out of 100 points received

Connection Status: **GOOD**

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

14 out of 20 known issues fixed:

GOOD!

Windows taskbar shows the time 6:58 PM on 10/17/2012.



CyberPatriot Competition System

CCS Image Status and Scoring Report

Current Team ID: [REDACTED]

[REDACTED] out of 100 points received

Connection Status: **ERRORS DETECTED**

→ Internet Connectivity Check: Could not resolve host: www.google.com; Host not found

→ CyberPatriot Connection Status: couldn't connect to host

CyberPatriot Score Upload Status: Upload FAILED!

This connection status is

NOT GOOD!

(No scores were sent to the scoring server with the scoring report in this condition.)



CyberPatriot Competition System

Minimum Hardware Requirements

- 1 Ghz Intel x86 compatible processor (2+ Ghz dual-core or better with [virtualization extensions](#) recommended)
- 2 GB of RAM (more is better)
- 20 GB of free disk space
- DSL or faster Network connection
- XGA (1024x768) or higher display (Projector to allow all students to see display recommended)
- Windows 2000 or later, OS X 10.4.11 or later, Linux 2.4.10/2.6.4 or later
- ZIP Client capable of handling encrypted ZIP files
- **VMware Player 5.0**
- When in doubt, check VMware Player Documentation
 - www.vmware.com/support

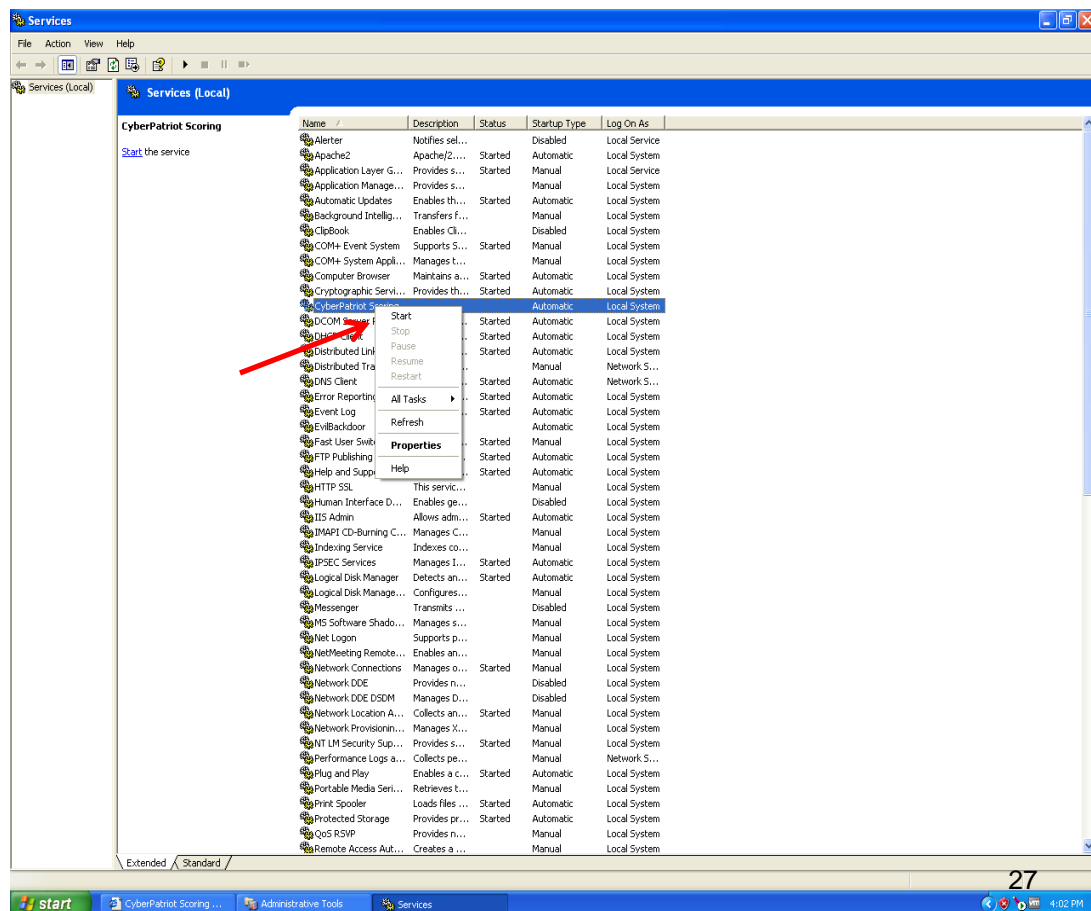




CyberPatriot Competition System

CyberPatriotScoring.exe

- DO **NOT** UNDER ANY CIRCUMSTANCES STOP THE CYBERPATRIOTSCORING.EXE SERVICE!





Tech Support

- **Available during working hours:** (CPOC Rosslyn, VA)

9:00 AM – 5:00 PM Eastern Time

Monday – Friday

No Holidays or Weekends.



- **Contact Information**

Tech Support Chat: afa.adobeconnect.com/CPOC

Telephone: **1-877-885-5716**

- E-Mail answered during working hours at: **info@uscyberpatriot.org**

CyberPatriot



Rules of Competition



CyberPatriot V Rules Book

- Reference
- Advisory Board
- CP VI Rules Book scheduled for late September

CyberPatriot V



www.uscyberpatriot.org

Competition Rules



The Air Force Association
1501 Lee Highway, Arlington, Virginia 22209-1198 (703) 237-5800 www.afta.org



INTELLECTUAL PROPERTY!

Microsoft Licenses

Client Software



Chapter 4: General Rules of Competition

- **No Outside Assistance.** Includes Coach and Mentor
 - After point of image registration
 - LAN Issues outside
- **No Sharing of Competition Images or Information**
 - Structure a competition space or procedures so that other teams' competitors may not gain useful information or a competitive advantage.
 - Licensing violation Issue
- **Internet Resources/Software Tools.** Conditions for use:
 - Free.
 - Found on Internet with Google search engine.
 - Download, does not require a previous membership, credit card or other monetary instrument.
 - Access is not granted based on a previous membership, purchase, or fee.
 - All Teams have access to the resource/tool.
 - No password from a previous payment or relationship is required to access the site.



General Rules of Competition (Cont'd)

- **One Image Instance.** A team may only open one instance of an image at a time.
- **Registered Competitors.** Only registered CyberPatriot competitors may compete with their teams.
- **Offensive Activity.**
 - Hacking
 - Interference with another team's ability to compete.
 - Social Engineering and False Information. An attempt to gain a competitive advantage through the use of social engineering or to provide false information to CyberPatriot participants (e.g., CyberPatriot Facebook page, Twitter, text, chat, e-mail, etc.) is prohibited.
- **Six-Consecutive Hour Limit on Competition Activity**



General Rules of Competition (Cont'd)

- **Questions and Conflicts.** Coaches are encouraged to work with the CyberPatriot Program Office to resolve any questions regarding the competition rules and regulations before the competition begins.
- **Online Round Internet Connection.** The Internet connection is the sole responsibility of the team, even if provided with an Air Card or other equipment by the CyberPatriot program office. Teams should have a *pre-arranged back-up plan* for the case of an Internet failure (e.g., public library, alternate facility, private residence)

CyberPatriot



Outreach



Internships – Northrop Grumman

THE VALUE OF PERFORMANCE.

NORTHROP GRUMMAN

Internship Requirements:

Basic Qualifications:

Candidates MUST meet the following required skills:

- Must be at least 16 years of age
- Enrolled in and attending high school
- Must meet eligibility requirements to obtain a government issued clearance

Preferred Qualifications:

- GPA of 3.0 or higher
- Advanced science, math and/or computer science coursework
- Have participated in the CyberPatriot program a plus for computer science-related internships
- Knowledge of MS Office products

Current Internship

Locations:

Alabama

- Huntsville

California

- Palmdale
- Redondo Beach
- San Diego

Colorado

- Aurora

Maryland

- Annapolis Junction

Virginia

- Chantilly
- Fairfax
- Herndon
- McLean

Continue to check back at the below web link as more will internships will be opening in other areas soon!

<http://www.northropgrumman.com/Careers/StudentsAndNewGrads/Pages/Cyberpatriot.aspx>

Internship Questions? Contact CyberPatriot@ngc.com



The CyberSentinel

The CyberSentinel / October 2012

Sponsor Profile: SAIC



Defending against cyber attackers to protect a nation, an IT system, or even yourself takes a heightened level of awareness combined with technical skills.

October is National Cybersecurity Awareness

Month, a time to increase education and showcase industry growth, opportunities and cybersecurity skills. SAIC is a founding partner of CyberPatriot and SAIC's live-training cyber game engine, CyberNEXS <http://www.saic.com/cybernexs>, powers the youth competitions with a realistic cyber environment to train and exercise the essential skills to defend a computer network, under the pressure of a real-life attack. Cyber defense competitions are becoming a vital

path to nurture talent, sharpen cybersecurity skills, and increase education and ethics in information security.

SAIC's patented CyberNEXS has been used for over 180 training and competition events globally and recently partnered with the International Council of Electronic Commerce Consultants (eC-Council) Foundation to sponsor the Global Cyberlympics <http://www.cyberlympics.org/Home.aspx>. The qualification rounds were conducted via the Internet, where hundreds of contestants from 31 countries tested their technical cyber skills; the Global Finals will be a Capture the Flag competition conducted at Hacker Halted in Miami at the end of October. CyberNEXS contains a real-time, high fidelity scoring system that is easily adaptable to changing threats

and takes participants through various training scenarios, including forensics, defensive and offensive operations. Available live anywhere in the world, CyberNEXS provides a web-based network management tool that aids in real-time feedback and focused training.



A CyberPatriot Founding Partner, SAIC's CyberNEXS team received the Air Force Association's Hoyt A. Vandenberg Award in 2010 for its outstanding support of the CyberPatriot Program.

Cyber Crime Case Challenge Coming to CyberPatriot

By The Defense Cyber Crime Center (DCC)

The Department of Defense Cyber Crime Center is a CyberPatriot Partner. In the CyberPatriot IV National Finals Competition, DCC conducted the Digital Crime Scene Challenge as a scored event for the competition.

The DCC Digital Crime Scene Challenge is an interactive competition that presents teams of 2-3 competitors with a simulated crime scene and asks them to solve the case in less than 15 minutes. This hands-on challenge brings awareness to the issues that real-life cyber investigators and security professionals face. Various levels of a cyber investigative process are put to the test in this challenge:

- Analyzing case data
- Processing a crime scene
- Securing evidence
- Conducting a digital forensic examination

To win the challenge, teams needed to find the most digital devices in the crime scene, identify the device that contains vital case information based on the scenario and facts given, and locate the digital evidence on the forensic machine (provided). No previous technical expertise was required to partici-



Competitors study devices to determine if they are digital or non-digital evidence.



Referring to a transcript, competitors determine which device holds the vital clue to solve the case.

pate.

The Digital Crime Scene Challenge is undergoing a major overhaul to debut this fall. The Cyber Crime Case Challenge (C4) iteration will include more elements of a Cyber Crime investigation and an updated format. We hope to see you at the CyberPatriot V National Finals Competition in March 2013.



Participants search the suspect for evidence during the CyberPatriot IV National Finals Competition.

The CyberSentinel

CyberPatriot Program Office

•1301 Lee Hwy Arlington, VA 22209 • www.uscyberpatriot.org

•E-mail: info@uscyberpatriot.org • Telephone: 877.885.5716



Spotlight on Spokane Public Schools

The CyberSentinel / October 2012



Partnering with community mentors helps SPS find cyber success

CyberPatriot started in Spokane Public Schools (SPS) with one team of curious students and a couple of well-intentioned coaches.

This year, SPS has 10 teams from five schools, experienced students, a fleet of coaches supported by community mentors eager to share their knowledge and a Center of Excellence designation.

"Our first year of competition without mentors was ugly ... let's leave it at that," remembered MSgt. Loyd Patton, Aerospace Science instructor and coach of John R. Rogers' Air Pirates team. "This wouldn't work without the mentors."

Coaches are responsible for recruiting students, scheduling practices and making sure students attend them, handling logistics and travel arrangements, collecting permission slips, and completing the paperwork required for the trip to nationals. The mentors fill in the rest, working with students weekly, and then more often as the competition date draws near. Some have donated more than 150 hours district-wide.

"Spokane's local businesses have shown great support of CyberPatriot by allowing their employees to participate as mentors who provide training for their area of expertise," Patton explained. "We have a perfect blend of mentors, including former CyberPatriot competitors and experts in software, operating systems, hardware, and security. They all freely lend their expertise to all the teams."

In addition, support from Spokane Public Schools' Career and Technical Education department has provided opportunities for students to compete and learn skills that are on the cutting edge of technology.

Mentors include Dan Wordell, Roger Carbajal and Brandon Thompson of the SPS Instructional Technology Support Center, Kurt Strauss of Microsoft Corp, Don Edwards of Epicor, Glen Bell of Purcell Systems, Eric Turner from Northwest Registered Agents LLC, and college students and former CyberPatriot competitors Alex Daranitsa, Tu Trong and Jacob Thompson.



Seven teams of the 24 finalists competing in Washington, D.C., last year from four high schools in Spokane Public Schools.



John R. Rogers High School's open division teams are ready for CyberPatriot V. The school's AFJROTC team was named AFJROTC service champion, and also took second place in Computer Defense in CyberPatriot IV. Also from Spokane Public Schools, Lewis and Clark High School took first place in Forensics, and second place in Computer Defense in the open division.

"There is very little we do these days that is not in some way affected or controlled by computers. Security of these systems and networks is critical," said Patton. "CyberPatriot gives our students skills that are needed in today's world and can turn into well paying jobs."

For many Spokane CyberPatriots, that's happening sooner, rather than later. Over the past few years, many students have been hired as interns at the district's Instructional Technology Support Center (ITSC) and one is currently seeking a career there.

"They make good hires due to their passion, commitment and leadership training," said Terry Yeigh, Computer Science instructor and CyberPatriot coach at Rogers High School. "Students have had the opportunity to learn the necessary skills and have proven that they are willing to learn and study to achieve a higher skill level. Also, ITSC managers have the chance to see how the students react and handle pressure and problem solve."

With continued community support, Spokane's CyberPatriots envision the Lilac City becoming synonymous with cyber security.

"My hope is that Spokane Public Schools becomes the leader in this area," Yeigh said, "and becomes known for its pursuit of being the leader in Information Technology education."

Rogers HS coaches are Tim Young, Terry Yeigh, Chuck Dravland, Debbie Smith, Col. Don Outrop and MSgt. Loyd Patton. The North Central HS coach is Josh Harrison. The Lewis and Clark HS coach is Mark Rhoades. The Ferris HS coach is Skip Carter. The Shadle Park HS coach is Steven Ruffler.



Questions

?