



ISSUE 42 | SEPT 2015

# THE CYBERSENTINEL

The official newsletter of CyberPatriot—AFA's National Youth Cyber Education Program



## COMMISSIONER'S CACHE



Fall is nearly here, and our terrific CyberPatriot participants are back in school. I know, we all wanted summer vacation to last a little longer, but hey you've moved up a grade and life is good!

A lot of you participated in AFA CyberCamps this year, and I hope your experience was as good as the reports we've gotten. We would love to hear from you if you have ideas on how next year's slate of camps can be even better. And for those of you who were fortunate enough to earn a Northrop Grumman internships, congratulations! I am sure the experience of working with real-world cybersecurity operations was awesome. It's not too early to set your sites on one of those golden opportunities for the summer of 2016!

CyberPatriot Exhibition Rounds were held throughout the summer and had good participation. The Elementary School Cyber Education Initiative was released in July and over 400 requests for materials have already been received (Wow!). Between all the activities our CyberPatriot staff planned an exciting season for you to include the Sneak Preview on Sept. 19, and introductory images available this month.

Thanks to all our Coaches and Mentors who make our teams possible. Without your dedication CyberPatriot could not have grown to the program it is. Special thanks to our Presenting Sponsor the Northrop Grumman Foundation and the rest of our sponsors. All of you are making a difference in the lives of our competitors and the future of our nation.

*Bernard K. Skoch*

Bernard K. Skoch | National Commissioner



## DATES TO KNOW

SEPT. 1-22	Introductory Images Available
SEPT. 19	Sneak Preview Round
OCT. 9	Team Creation Deadline
OCT. 13-27	CP-VIII Official Practice Round
NOV. 6	Student Registration Deadline

## CYBERPATRIOT BY THE NUMBERS

# 400

REQUESTS FOR ESCEI DIGITAL KITS

Request your free Elementary School Cyber Education Initiative kit today!

[GET YOUR KIT HERE](#)

## CYBERPATRIOT VIII SNEAK PREVIEW — SEPT. 19, 2015

How would your team like to test drive the newest version of the CyberPatriot Competition System (CCS)? From 12 p.m.- 4 p.m. ET on Saturday, Sept. 19, 2015, teams registered for CyberPatriot VIII are invited to the CyberPatriot VIII Sneak Preview.

The Sneak Preview is designed to help the CyberPatriot Program Office test the new version of CCS on Windows 7 and Ubuntu images. It is not a scored round of competition. Image difficulty will be similar to that of the Exhibition Round images that were used throughout the summer, but there will be different vulnerabilities.

An Image Download and Instructions email will be sent to registered Coaches registered on or before Thursday, Sept. 17. Coaches may forward this email to their Competitors, Mentors,

and Team Assistants so that they may participate individually. Competitors do not need to be registered to participate in the round. Images should be downloaded before the start of the Sneak Preview. (In scored rounds of competition, Coaches, Mentors, and Team Assistants should never be on the images.)

At 11:30 a.m., an AdobeConnect chatroom will open to answer any questions about the preview and the competition in general. This chatroom will stay open for the duration of the Sneak Preview. The Image Download and Instructions email sent to Coaches will contain login information for the virtual meeting that will take place before and during the round.

Decryption passwords and Unique Identifiers will be sent in a Competition Start (StartEx) email at 12 p.m., officially starting the Sneak

Preview. Coaches will receive a Unique Identifier for each of their teams that can be used by each Competitor on the team, as well as Coaches, Mentors, and Team Assistants.

The StartEx email will also contain a link to a survey with questions to keep in mind during the Sneak Preview. Responses to these questions are instrumental in improving our scoring software for the upcoming season. Participants should fill out this survey while on the images and submit it immediately following the end of the event.

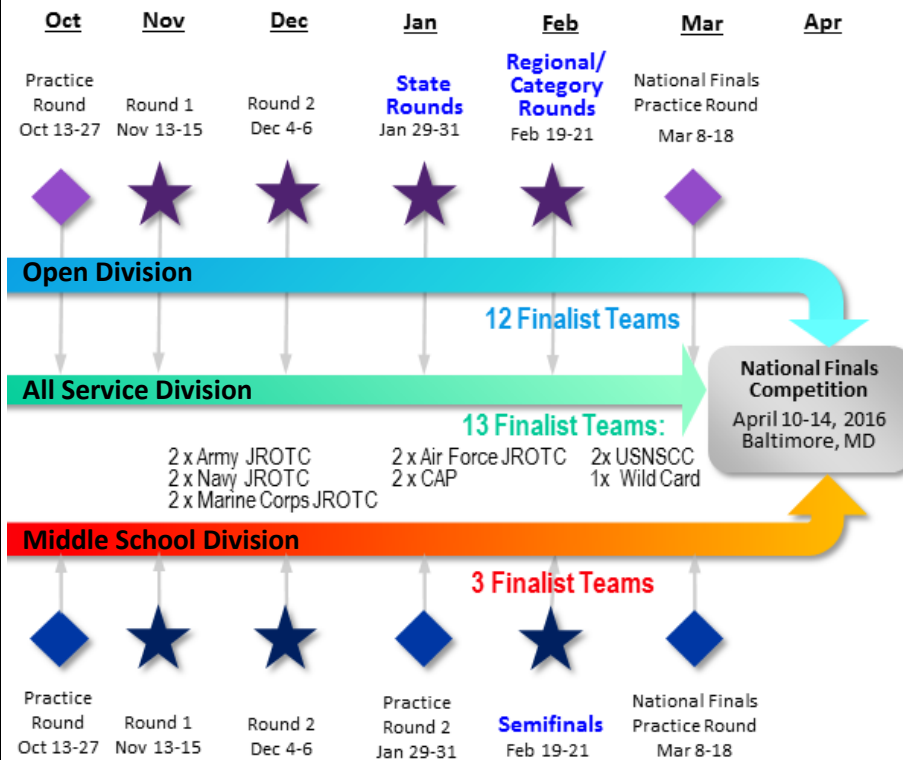
If you are interested in participating in the Sneak Preview, please ensure your team's Coach has registered for CyberPatriot VIII. Any questions concerning the Sneak Preview may be sent to [cpoc@uscyberpatriot.org](mailto:cpoc@uscyberpatriot.org).

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Publisher: B. Skoch | Editor: F. Zaborowski  
Asst. Editors: R. Dalton / R. Smith

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## CYBERPATRIOT VIII IS FAST APPROACHING... MARK YOUR CALENDARS!



### OPEN & ALL SERVICE DIVISIONS

OCT. 13-27	Practice Round
NOV. 13-15	Round 1
DEC. 4-6	Round 2
JAN. 29-31	State Round
FEB. 19-21	Regional / Category Round
MAR. 8-18	National Finals Practice

### MIDDLE SCHOOL DIVISION

OCT. 13-27	Practice Round
NOV. 13-15	Round 1
DEC. 4-6	Round 2
JAN. 29-31	Practice Round 1
FEB. 19-21	Semifinals
MAR. 8-18	National Finals Practice

### NATIONAL FINALS COMPETITION

April 10-14, 2016  
Baltimore, Md.

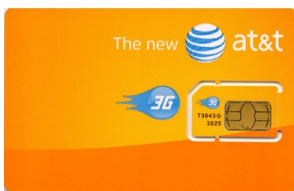
## SPONSOR PROFILE: AT&T



For the fourth consecutive year, CyberPatriot Diamond Sponsor AT&T has donated over 300 3G SIM cards for use in AT&T air card devices to be used by participants in the upcoming season of competition.

AT&T, a long-standing source of network-enabled technology solutions for federal government, has provided the SIM cards for the last four years to ensure teams have sufficient bandwidth needed to prepare for the competition. Without these SIM cards, many of the current teams would be unable to participate.

Additional information regarding air cards will be emailed to Coaches at the beginning of this month. Please keep in mind that requesting an air card does not guarantee that you will receive one. Air cards are given to teams on a first come, first served / needs basis.



## Coaches' Corner

- **Online Coaches and Mentors Meetings.** The Coaches Meetings are a great time to ask any questions about CP-VIII! The format has changed to an interactive chat session until later in the season. Information on joining these meetings will be emailed to Coaches a few days before the meeting. Additional questions can be directed to [info@uscyberpatriot.org](mailto:info@uscyberpatriot.org).

Next Meeting: Sept. 15, 9:00 a.m.—5:00 p.m.

- **Introductory Images.** Beginning Sept. 1, Introductory Images will be available to all registered Coaches and Mentors. The purpose of the Introductory Images is to introduce Competitors, Coaches, and Mentors to images and scoring in a non-competition environment with the scored answers. Answer keys will be available on the images' desktops. Introductory Images will expire Sept. 22.
- **Training Materials.** Registered Coaches and Mentors may access exclusive training materials at the Dashboard on the CyberPatriot website. Just click on SIGN IN and enter your login and password to access the Dashboard. Competitors do not have direct access to the training modules, but Coaches and Mentors are welcome to share the modules.
- **Sneak Preview Round.** The Sneak Preview Round will be held Saturday, Sept. 19. (See p. 1 for additional information)



## SPOTLIGHT: CISCO VOLUNTEERS

### Cisco Volunteers, CyberPatriot Inspire Students to Pursue Cybersecurity Careers by Megan DePorter Zeishner

In August, 60 middle and high school students gathered at Cisco campuses in Research Triangle Park (RTP), NC, and Richardson, Texas, for a special cybersecurity camp being offered for the first time by CyberPatriot, the Air Force Association's National Youth Cyber Education Program.

The camp gave students who had little to no cybersecurity experience an opportunity to learn more about cybersecurity and how to safely use the Internet. The students completed the 20-hour curriculum over four days, and on the fifth day, took part in a mock competition similar to the one held at the CyberPatriot National Finals each spring. It is our hope that this experience will inspire these students to join the CyberPatriot program and ultimately pursue science, technology, engineering, and math (STEM) education and careers. A total of 24 CyberPatriot Camps were offered across the country.

As part of Cisco's US2020 efforts, technical assistance center (TAC) engineers volunteered at both Cisco locations to work with students and teach them the CyberPatriot curriculum throughout the week. Cisco is committed to having 20 percent of our workforce contribute 20 hours or more per year to STEM mentoring by 2020, and their participation is helping us fulfill that goal. Employees from Cisco Community Relations also filled the afternoon of each day with tours of labs, panel discussions, speed mentoring, TelePresence demos and more.

Kevin Klous, a TAC engineer & CyberPatriot RTP camp instructor, believes the weeklong cybersecurity camp is an excellent resource for preparing today's students for tomorrow's jobs. "As the Internet of Everything (IoE) grows larger and larger, it is going to be increasingly important that we focus on security as a foundational principle of everything related to technology," he said. "Because of this need, there will be a growing demand for talented, security-conscious people in the technology space in the years to come."

Since its creation in 2009, CyberPatriot has grown by more than 20 percent each year, with 2,175 teams registering for the competition this year. Students like Richard Parker and Kevin Schulmeister, who joined CyberPatriot in high school and founded their own technology businesses after graduating, gained valuable skills while securing networks and learning more about cybersecurity during the competition. "By investing in these students at such a young age, Cisco is helping to develop talent here at home that will help not only Cisco but the entire nation to remain competitive in that space," Klous said. "This is important not only from an economic standpoint, but also for issues like national security as it's likely that some of these students may go into cybersecurity for purposes of national defense, as that is becoming more of a challenge in this increasingly connected world."

Cisco is committed to preparing young people around the world with the skills they'll need to thrive in the increasingly connected economy, and last week's CyberPatriot camp is an integral part of those efforts. With the help of CyberPatriot, we're ensuring students learn about cybersecurity and IT at an early age and discover the new careers being created by the Internet of Everything.



Photos courtesy of Cindy DeCarlo, Cisco



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## CYBER SECURITY CHALLENGE UK TRIVIA



### CRYPTOGRAPHY

Keyed vignette? Not quite. This third law isn't Newton's, nor even Čapek's

**zgbov iuadcw**



### BOT HISTORY

Invented in 1961, this 2003 Hall of Famer was employed to do what?



### HOT MATHS

Calculate to five decimal places the square root of the sum of the number of threes which occur between 300 and 400. Multiply each digit of that answer with the quantity of the significant digits. The answer is the isotope mass of a material, which is about five times better than lead as a gamma ray shield. Name the material.

## PATCHES FOR SALE!

The official CyberPatriot patch is still available for purchase.

Click [here](#) for details.



## CyberPatriot VIII Registration Count (as of Sept. 1, 2015)

# 1,430 Teams



#CyberPatriotAroundTheWorld  
**WINNER**

**Name:** Max  
**Location:** Cremona, Italy  
**Team:** MIT Lincoln Labs Donut Hack Us



## THIS MONTH IN CYBER HISTORY

**Sept. 14, 1959** — In the 1950s, the US population reached 150 million and the postwar economic boom expanded the gross national product. More Americans joined the ranks of the middle class and the number of new personal checking accounts boomed. Bank of America was the largest bank and processed more checks than any other bank in the world. While popular and convenient, checks presented a serious problem in the bank's back offices—it took a huge workforce and countless hours to process millions of checks per month.



On Sept. 14, 1959, the company accepted the ERMA (Electronic Recording Method of Accounting) system. This revolutionary system digitized checking for the Bank of America by creating a computer-readable font. A special scanner read account numbers preprinted on checks in magnetic ink. The system was developed at the Stanford Research Institute

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