



ISSUE 77 | SEPT 2018

# THE CYBERSENTINEL

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

## COMMISSIONER'S CACHE



This month millions of students will make their way to (or back to) school. In decades past that involved a lunch pail, a backpack, and a few school supplies. It still does in many cases, but with the added bonus of wi-fi, URLs, HTTP, FTP, and TCP/IP. It's a brave new world, and a part of it is this wonderful thing we call connectivity. I'd encourage everyone to read in this month's issue our article offering important cybersecurity tips to help make this year's back-to-school experience a safe one.

You will also read in this month's pages about two BRILLIANT CyberPatriot volunteers: Civil Air Patrol's Major Bill Blatchley, our CP-X Coach of the Year; and Mr. James Johnson, our CP-X Mentor of the Year. From a large field of wonderful nominees they emerged as the winners, and we invite you to join us in offering our congratulations. I look forward to joining them at AFA's Air, Space & Cyber Conference where they will be honored.

Now, it's on to CP-XI! Best of luck to you and your team in your quest to reach Baltimore. And as always, thank you to our generous sponsors led by Northrop Grumman Foundation. None of what we do could be done without your generous support.

Until next month, go forth and defend!

Bernard K. Skoch | National Commissioner



## DATES TO KNOW

SEPT. 6	Training Round Begins
SEPT. 22	Sneak Preview Round
OCT. 3	Team Registration Deadline
OCT. 4	Training Round Ends

## REGISTER FOR CYBERPATRIOT XI



# OCTOBER 3

## TRAINING ROUND, SNEAK PREVIEW HIGHLIGHT SEPTEMBER

Opportunities for training abound in September! The month-long Training Round begins at 5 PM Eastern Time on Sept. 6 and ends Oct. 4. The four-hour Sneak Preview will be held on Sept. 22 from 12 noon to 4 PM Eastern Time.

**Training Round.** During the Training Round, registered teams will train on Windows 10, Windows Server 2016, and Ubuntu 16 virtual



operating systems with answer keys. Coaches may use the images to familiarize themselves with the competition. Competitors do not have to be registered for the round, but must be under the supervision of a registered coach when using the images. Registered mentors may train on the images with their teams.

**Sneak Preview.** Teams will have a chance to test and familiarize themselves with the new CyberPatriot Competition System software on Sept. 22. The four-hour event will not be repeated.

**New Player Software.** The standard player for this season's images is VMware Workstation Player 14.1.2. All images will be tested to the player. Computers manufactured before 2011 may not be able to load the software and

teams in that situation may use VMware Workstation Player 12.5.9 for CyberPatriot XI only. Teams may use other players, but will not receive special consideration if an issue results from their use. For more information please see the competition technical specifications at <http://uscyberpatriot.org/competition/technical-specifications>

**Practice Round.** The Practice Round will take place Oct. 10-22. Teams will have extra time with the Training Round Images plus an additional image.

**Competition Challenges.** Please go to the "Competition" tab at [www.uscyberpatriot.org](http://www.uscyberpatriot.org) to see competition challenges by round and other information you may need to compete this season.

## IMPORTANT CYBERPATRIOT XI DEADLINES!!

**The start of CyberPatriot XI will be here before you know it! Don't miss out on the biggest season yet because you missed a deadline... REMEMBER, IF YOU ARE A RETURNING TEAM, YOU MUST RE-REGISTER EACH SEASON! WE CANNOT ADD TEAMS AFTER THE DEADLINE.**

### OCT. 3, 2018 IS THE LAST DAY TO RESERVE A SPOT FOR YOUR TEAM(S)

This is the last day that coaches can register a team for the competition! Coaches must complete a team registration form for each team they intend to coach (up to five teams per coach). To meet this deadline, you must simply have a team number assigned for each team you wish to coach. Team verification/approval, competitor registration, and fee payment do NOT need to be completed at this time.

[Click here for complete registration instructions](#)

### NOV. 1, 2018 IS THE LAST DAY FOR COMPETITORS TO BE ADDED TO TEAM ROSTERS

This is the last day that a coach can register a competitor or switch competitors between teams. Competitors do not need to be fully registered by the deadline. A competitor status of "Registration Pending" is acceptable, however it is encouraged that all competitors complete the questionnaire to achieve a "Registered" status.

### NOV 8, 2018 IS THE LAST DAY TO PAY THE REGISTRATION FEE OR REQUEST A FEE WAIVER

This is the last day to pay the registration fee (by check or credit card), turn in a purchase order, request a fee waiver, or request a deadline extension from the CyberPatriot Program Office. The registration fees are:

\$205 per high school team  
\$165 per middle school team

Fees are automatically waived for JROTC, CAP, and Naval Sea Cadet teams  
Fee waivers can be requested for Title I schools and all-girl teams.  
We do not offer "BOGO" deals for schools with multiple teams.

## SUDO CYBER

Colorado Springs, CO – **Sudo Cyber** is the new Career and Technical Education Student Organization (CTSO) focused on cybersecurity. This school-based CTSO enhances student learning through contextual instruction, leadership, personal development, applied learning, and real-world application. Cyber education through a local **Sudo Cyber** chapter contributes to building employability and career skills through the application and engagement of students in chapter activities chosen by student members, and CyberPatriot provides the competitive platform for **Sudo Cyber** members. Students participating in CTSOs develop knowledge, skills, and abilities that will guide them in choosing academic and career paths. With a huge demand for cyber talent, business and industry partners are eager to participate in helping teachers, coaches, and students make **Sudo Cyber** a fun and meaningful student experience.

The need for a cyber-focused CTSO was identified through the grassroots effort of teachers, community college peers, and the National Cybersecurity Center. High schools, middle schools, and community colleges are forming **Sudo Cyber** chapters for the 2018-19 school year. Educators and coaches throughout the country are encouraged to participate. The NCC has provided a startup guide for educators and districts, making it easy for a chapter sponsor to stand up **Sudo Cyber**. To join the database of chapters participating and gain access to Sudo Cyber resources, contact [mary.graft@cyber-center.org](mailto:mary.graft@cyber-center.org)



[Click here for the CTSO Stater Guide](#)

## Coaches' Corner

- **CyberPatriot XI Registration is OPEN.** All coaches who plan on participating in the CyberPatriot XI competition season (2017-18) must re-create their teams for the season. CP-X rosters have been removed from the dashboard. You will be assigned a new team number for the CP-XI season upon re-registering. [Click here](#) for registration instructions.
- **Sneak Preview.** The four-hour Sneak Preview will be held on Saturday, Sept. 22. Participation is NOT required.







## SPOTLIGHT: CYBERPATRIOT X COACH AND MENTOR OF THE YEAR



### CYBERPATRIOT X COACH OF THE YEAR MAJOR BILL BLATCHLEY | COLORADO SPRINGS CADET SQUADRON

If there's any individual coach who can call themselves a CyberPatriot veteran, it's Bill Blatchley.

Bill Blatchley is a quiet powerhouse in the CyberPatriot arena, taking teams to the National Finals Competition eight years in a row. His teams have been on the podium three years straight, taking third, first, and third in CyberPatriot VIII, IX, and X. His team also took home the All Service Division title in CyberPatriot IV. In addition to coaching his own team, Bill mentored a 12 other teams both locally and around the country during the CP-X season.

He dedicates many hours to training cadets and taking them from the ground up to be top contenders. In order to build a strong CyberPatriot team year-in and year-out, Bill spends an 8-20 hours per week preparing lecture topics and building images, and his team meets 4+ hours a week, starting in the summer (and he does all this while running his own software company!).

Bill's teaching methods seem unconventional to some educators, but his methods prepare cadets to move beyond CyberPatriot and into the field of cybersecurity. He inspires cadets to research subject matter on their own through team tasks. He is also a one man Red Team during team building exercises, where he actively attacks the team as they work to secure the images he has created. The cadets enjoy when "Jack" is in the house and love trying to block him. He donates the use of his company's office space and server for CyberPatriot. He has given up full weekends during competitions so that he can be in-house to help the teams he mentors get online. He even stays in case they have technical issues because he wants to see the students succeed. He has seven past competitors working in the cyber field for a variety of business, including government agencies and Northrop Grumman. Six previous competitors are currently enrolled in college programs varying from cybersecurity to digital forensics.

On the outside, Bill is cool, calm and collected, but on the inside it's clear that he has a burning passion for CyberPatriot and giving students the opportunity to explore and grow in the cybersecurity realm. Congratulations to Bill on his well-deserved recognition as Coach of the Year.



### CYBERPATRIOT X MENTOR OF THE YEAR JAMES R. JOHNSON | CHEYENNE CENTRAL HIGH SCHOOL (WY)

James R. Johnson, more casually known as Jim, has a profession that would make people assume he's a great mentor. But job title alone does not make a person a great mentor. As an IT Operations Manager for Microsoft's Cheyenne Data Center, Jim has the knowledge to teach students, but it's his personality and his relationship with the students that has earned him the title of Mentor of the Year.

Jim encourages them to push through when they're stuck on a problem, probing second and sometimes third efforts to solve varied problems and tasks. He recognizes their good work and rewards them with a smile or pat on the back saying things like, "Good job! I knew you could solve that one." He connects with each of them on a personal level, knowing the right way to get their very best efforts.

On his own initiative, Jim established first year goals with the CHS Principal, setting up a charitable organization through Microsoft's Give Campaign and providing money for equipment and volunteer support. Jim volunteers his time after hours to participate in this program — four hours a week. As a father of three his weekends are valuable family time, yet he gives it up to oversee every weekend competition. At every meeting, Jim's enthusiasm re-energizes students, to continue their learning beyond the standard school day.

Jim encouraged his school to host the first summer camp ever in Wyoming. He lined up additional mentors from his workplace and developed a program each day to stimulate student career tracking. He scheduled information security professionals to talk to the campers about their work.

Jim clearly loves his job and like a true leader motivates those around him to be better. When talking about Jim, team coach Thomas Johnson said "I don't know who is more fortunate me or the students. The school district is constantly beating the drum on STEM. Jim has made a pathway for them. It is now a reality for all the students that participate in our program."

## TALENT SHORTAGE—HOW DO WE FIX IT? BY CAROLINE JOK, CYBERPATRIOT INTERN



In the past, *The CyberSentinel* has featured articles on the talent shortage in STEM fields – particularly cybersecurity. But what are the solutions? What happens when we need talent to fill jobs now, not just 10 years from now? Cybersecurity isn't an 'up and coming' field, it is a 'here and now' field, which means we need a solution *now*. Thankfully, there is a solution that has been rapidly developing for the past decade: Human-machine teaming.

This is a phrase that is becoming increasingly common in the defense industry but exists, and is applicable, throughout the workforce. Raj Samani, head of Strategic Intelligence at a cybersecurity firm writes, "In my field of cybersecurity, as long as we have a shortage of human talent, we must rely on technolo-

gies such as these (machine learning) to amplify the capabilities of the humans we have. Furthermore, as long as there are human adversaries behind cybercrime and cyber warfare, there will always be a critical need for human intellect teamed with technology."

Forging blended teams of humans and complex machines amplifies effectiveness and capabilities. Human security teams won't be able to sustain the volume required as new threats are introduced, and machines don't have the capacity to create creative responses.

Samani noted, "As we implement machine learning deeper into our cyber defenses, we must recognize that humans are good at doing certain things and machines are good at doing certain things. The best outcomes will come from combining them. Machines are good at processing massive quantities of data and performing operations that inherently require large scales. Humans have strategic intellect, so they can understand the theory about how an attack might play out even if it has never been seen before."

Developing skilled workers in STEM is as crucial as ever, but until the glut for talent is filled, we have to get creative. Our lives are so dependent on machines as it is, it only makes sense that we look to them for solutions. [Source: https://securingtomorrow.mcafee.com/](https://securingtomorrow.mcafee.com/)

## A NEW SCHOOL YEAR, A NEW LIST OF CYBERSECURITY TIPS!

**Keep Software Up-to-Date.** Be sure to keep the operating system, browser software, and apps fully updated with patches. Even new machines can have out-of-date software that leaves you at risk. Also, review the privacy settings - when an app is updated, it may change your settings!

**Practice Safe Computer Usage.** Use trusted apps and only browse to trusted websites.

**Be a Smart Network User.** Don't access personal or financial information over unsecured public Wi-Fi networks such as the free Wi-Fi in coffee shops, bookstores, hotels, and schools, as this data can be easily viewed by others.

**Don't Jailbreak/Root Your Device.** Jailbreaking a device is when you gain "root" access to the device, which means that you disable the manufacturer and operating system protections so that you can access areas you were not intended to have access to. Jailbreaking your device puts you at a greater risk of getting hacked, and makes the device more susceptible to malware, malicious apps, and sensitive information disclosure.

Source: <https://www.cisecurity.org/>



## THIS MONTH IN CYBER HISTORY

**September 2, 1997** — In September of 1997, IBM announced an improved chess-playing supercomputer. After its Deep Blue chess-playing computer defeated human world chess champion Garry Kasparov in a closely watched match in May, the pioneering computer company decided to make the machine even faster and stronger. On September 2, IBM announced that its RS/6000 SP model, a parallel supercomputer, was now 58 percent faster thanks to a new microprocessor and some software refinements. Kasparov was not available for comment.

For more information, visit:

<http://www.computerhistory.org/tdih/september/2/>



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