



THE CYBERSENTINEL

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

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National Commissioner's Cache



2021 is starting as so many years have recently begun: with vivid reminders of how absolutely vital CyberPatriot continues to be. Every economy in the world has been perturbed by the coronavirus pandemic, and ours is no exception. And key to restoring our economic growth will be innovation in science, technology, engineering, and mathematics, and growing interest and participation in STEM has been our focus since Day 1. More, cyber intrusions and cyberattacks are getting worse. The second largest software development company in Germany was reportedly hit by a massive ransomware attack last year. A French IT services contractor was also purportedly attacked similarly. And one of the world's largest cruise line operators had a major data breach associated with a ransomware intrusion. So while the pandemic has been negatively impacting businesses, bad actors have been attacking those companies for criminal purposes. What our generous benefactors, led by the visionary Northrop Grumman Foundation, are investing in isn't a program. They are instead investing in a safer world for nations, for businesses, for society, and for people. And we thank them.

CyberPatriot XIII Competition Updates

Round 2 Recap

A successful CP-XIII Round 2 was held December 10-13, 2020, with 2,748 teams competing (1,649 Open Division teams, 721 All Service Division teams, and 378 Middle School Division teams). This round proved to be a success in challenging the seasoned teams. The Round 2 images were only completed in their entirety by two high school teams, which received the highest score of 300 points for the three images. Both middle school and high school teams were given the opportunity to work on 3 images for a total of 300 points. The maximum composite score Rounds 1 and 2 for Open and All Service Divisions is 660 and for Middle School is 550. The final scores for Round 2 include the Cisco Networking Challenge.

The Final scores for Round 2 along with tier assignments have been posted and can be found on our site by going to [Current Competition Scores](#). The Platinum tier is assigned to the top 30% scoring teams in the Open Division and in each service branch in the All Service Division.

Huntsville School Teams effected by Ransomware

Before the start of Round 2, CyberPatriot was notified of a ransomware attack on the Huntsville School System, which effected around 20 CyberPatriot competition teams. While the Huntsville teams were faced with a ransomware attack their motivation to compete was even stronger. Due to the sensitive nature of the attack and an ongoing FBI investigation, more information about the attack cannot be released at this time. To read more from one of the teams, you can refer to the article, [Huntsville High cyber teams compete as cyber experts battle ransomware attack](#).

*Please note that the article mentions a State Round but this year for CP-XIII, there are only Round 1, Round 2, Round 3, and the National Finals Competition.

Round 3

Round 3 of CyberPatriot XIII is scheduled for two days only, January 22-23, 2021. **All teams can compete in Round 3**, even teams who haven't competed in this season are still eligible to compete. The competition windows for each day of Rounds 3 are:

Friday, 9:00 AM - Saturday, 3:00 AM ET
Saturday, 8:00 AM - Saturday, 11:59 PM ET

AFA CyberCamps

AFA CyberCamp registration opens on February 1st, 2021 and is open through May 1st, 2021. Instructions for registering to host a camp can be found [HERE](#).



The 2021 AFA CyberCamp dates are:

- Week 1: June 7-11
- Week 2: June 14-18
- Week 3: June 21-25
- Week 4: July 12-16
- Week 5: July 19-23
- Week 6: July 26-30
- Week 7: August 2-6

CyberPatriot has modified camp materials to be able to be conducted in a virtual environment but will also allow camp host to hold in-person camps so long as they follow their local regulations surrounding COVID-19.

Show Your Support for CyberPatriot

If you, your team, coach or mentor have any photos or stories about how you represent CyberPatriot, please send them to us to share at h.daage@uscyberpatriot.org. We want to see how your team is wearing the CyberPatriot swag. Creativity is encouraged.

The teams from Shenandoah Valley Governor's School, Warrior Ladies, Sons of Cisco, and Sentinels show off their CyberPatriot XIII shirts while working hard and having fun!



International Spinoffs



CyberCenturion, the international spinoff competition that operates in the United Kingdom, completed Round 2 with 103 teams competing in the 2020-2021 competition season. Of those teams competing, 13 were middle school teams.

CyberTitan, the Canadian spinoff of CyberPatriot, had 60 teams competing in Round 2. Of those teams competing, 9 of them were Canadian Middle School teams. Female participation in CyberTitan is 24% of registered competitors.



CyberPatriot Shoutout

Homeland Security Today Honors Community Stars, COVID Heroes: 2020 Mission Award

CyberPatriot's very own Rachel Zimmerman was one of the 15 awarded with the 2020 Mission Award by Homeland Security Today. It is Zimmerman's superb efforts and leadership in CyberPatriot business operations that are a driving force behind the program's success.



Homeland Security Today said in the article, [Honors Community Stars, COVID Heroes: 2020 Mission Award](#), "Her responsibilities as Senior Director of Business Operations at CyberPatriot allow her to tangibly make a difference in closing the gap of cyber-force workers by providing education opportunities to students at all school levels. During the COVID-19 pandemic, the CyberPatriot National Youth Cyber Education Program didn't just survive – it thrived under her keen leadership and decisive action as she quickly pivoted efforts this past year during the COVID-19 pandemic as her programs equipped thousands of young people to enter the field of cybersecurity."

The Hondo CyberOwls

CyberPatriot would like to give a shoutout to the Hondo CyberOwls, who produce their own Cyber Newsletter, *The Cyber Talon*. In the September 2020 Issue, stories include Rising to the Challenge, Our Team, Cyber Professionals, Schedule, and Team Info.

The team dives deep into the Need for Cyber Professionals by providing resources that help show where the demand is for cyber jobs. They provide a link to the site,

<https://www.cyberseek.org/heatmap.html>, that provides an interactive map and information on Total Cybersecurity Job openings, Supply of Cybersecurity Workers, Geographic Concentration, and Top Cybersecurity Job Titles.



The close-knit team utilizes a unique strategy that assigns each competitor an area of specialization along with a nickname. Ashlyn Persyn, aka Quill said, "All my team members have nicknames, and these nicknames are related to their personalities or what they do or like. When my twin Mariah and I joined the team, we were told that we would have nicknames as well. Now I do not know if this was done on purpose or not, but my sister and I got related names. Mariah got the name "Post-it" because when she is working on a lab, she has sticky notes everywhere. My name is "Quill" because I take the most intense notes my coach has ever seen. We are pen and paper!"

The CyberOwls team has a fun and uplifting spirit that is apparent in the way they have fun with some of the more daunting tasks many cyber professionals face. "I believe that our team has worked out a method to get our computers to update faster. First we took sticky notes of various colors and drew a smiley face on them. Next, we placed them on all of our computer screens. Then, like magic, our computers updated a lot faster than they were initially. Plus, sticky notes are a cute addition to the boring loading screens." - Mariah "Post-it" Persyn. You can learn more about the CyberOwl team by checking out their newsletter the [Cyber Talon](#) or by looking at the pictograph of the competitors below.

Logan "Batman" Estes

Windows team member

- Would like to major in Computer Science or Writing.
- My favorite CyberPatriot Lesson I learned is where you could change account lockout and password policies.

Katelynne "Glitter Bomb" Pumphrey

Linux team member

- My favorite lesson that I learned is Google is your friend, and don't forget SSH last year we didn't do SSH. (SSH is a network protocol)

Ashlyn "Quill" Persyn

Linux team member

- Would like to major in Cyber Security.
- At my first meeting I was assigned to work on the Linux program. The biggest lesson that I have learned in CyberPatriot is how to problem solve. When different commands do not work, I must research and read my notes to figure out the solution. When something finally works, it's such a rewarding feeling to know I did it.

Samari "Scoob" Escobedo

Windows team member

- Enjoys managing user accounts through control panel or password policies because the screen for it looks nice.

Mariah "Post-it" Persyn

Cisco team member

- Would like to major in Cyber Security or Computer Science.
- This is my first year participating in CyberPatriots and I have the honor of being the teammate that does the Cisco portion of the competition. Cisco Packet Tracer is an amazing program that allows me to build network topologies and model computer networks. However, the lesson I enjoy most about Cisco is learning how to connect devices together. It is the best feeling when you are able to link together different devices and watch those little green triangles light up. It is amazing to me how I took something that was not able to connect and communicate with each other and turn it into something that can transfer data.

David "Number 1" Counselman

Linux team member, Team Captain

- Would like to major in cyber security
- My favorite cyber patriot lesson I've learned is not to rely on my memory and rely more on notes.
- We are an up and coming team who had a strong start and hopefully a stronger finish.

A Word From Our Sponsors



AT&T is offering a promotion for free WiFi Hotspots with a \$15.00/month unlimited wireless data plan for students and teachers. The offer is valid through January 22nd, 2021. To learn more about the special promotion visit [HERE](#).

2020 In Review

Major Cyber Attacks in 2020

- In 2020, there was an increase in exploits targeting unpatched VPN services. Multiple attacks were successful due to a known vulnerability.
- Zoom, a popular video conferencing service, was victim to a cyber-attack that exposed credentials for an expanded number of users on the dark web.
- An attractive target during 2020 and specifically sought after by the Russian government was COVID-19 vaccination research centers and organizations. The new age arms race, to be the first to come out with a COVID-19 vaccination was full into effect.
- A potential hack that was thwarted by the pandemic was a repeat offender and the nation behind the hack of the 2018 Olympic. Intelligence agencies found evidence that Russia was planning another cyber-attack targeting the 2020 Olympic games that were canceled due to the pandemic. The first time Russia targeted the Olympic games in PyeongChang was in response to the country being banned from the Olympics due to covering up doping allegation data.
- The end of 2020 was near when the release of the major hack targeting multiple government agencies was announced. At this time Russia is believed to be behind the hack that utilized an update for the network monitoring program of the SolarWinds Orion Program. In an article, *The Strategic Implications of SolarWinds* by Benjamin Jensen, Brandon Valeriano, and Mark Montgomery it is said that it is easier to mention the government agencies that were not hacked than the ones that were hacked due to the large scale of the attack.

How to Reduce Your Risk of a Cyber Attack

- Ensure that your devices are up to date with the latest updates and patches.
- Back up all sensitive data.
- Educate all about the potential phishing and spam scams and ways to detect prior to clicking.
- Conduct a vulnerability assessment and prepare for an incident before it happens.
- Utilize the principles of Least Privileges and Separation of Duties.
- Enforce strong password requirements and two-factor authentication.



Meet the CyberPatriot Staff

An Interview with Rebecca Dalton | Director, CyberPatriot Engagement & Outreach



Q: How long have you been with CyberPatriot? What is one of your most memorable moments with CyberPatriot?

A: I joined CyberPatriot as an outreach coordinator in July 2013. I've worked with a lot of different people through the years, but my most memorable time with the program is having the opportunity to travel to Saudi Arabia and work with the educators at King Saud University to conduct a cybersecurity workshop on the women's campus. Another memorable moment of that trip was meeting with a group of young girls (roughly middle school age) to introduce them to cybersecurity.

Q: CyberPatriot is exceeding the national average for women in STEM; what do you think is the reason behind the grand number of female competitors?

A: CyberPatriot has always pushed for more girls to participate in the program. The same goes for minority students. We understand that diversity plays a huge role in productivity and success, regardless of the goal at hand, so highlighting the gender and ethnic diversity in our program has helped grow that participation. We make it a point to feature students from all different backgrounds in our videos and promotional materials, which helps young girls have the realization of "if she can do it, so can I."

Q: You are graphically so talented, where does your inspiration for CyberPatriot content and graphics come from? What is your favorite CyberPatriot shirt you designed?

A: It's tough to pinpoint where the inspiration comes from. If I'm speaking honestly, I never really know what I'm going to come up with until I start designing. It's a lot of trial and error, but usually after a few different designs, something sticks. As far as favorite t-shirt design, it's difficult to choose. My top three are probably CyberPatriot XIII – Just because it's new and I haven't had to stare at 30,000 of the same shirt yet CyberPatriot IX – this was the first year we strayed from having the CyberPatriot logo on the front of the shirt CyberPatriot XI National Finals Long Sleeve – It was fun to design and it glows in the dark!



I always laugh a little with each new design because there was once a time (shortly after I started working here) when Bernie refused to stray from a design of the CyberPatriot logo on the left chest. It took a year or two, but I eventually convinced him to let me come up with something a little different.

Q: You were a pillar in the transition to a virtual National Finals, how did the last-minute changes and adjustments come about?

A: There were a lot of meetings (phone calls and emails) about switching to a virtual national finals. A lot of my responsibilities for the in-person event deal with graphics/signage, PowerPoint presentations, competitor events (outside of the competition), so the transition to virtual actually eliminated a lot of the logistics I'm used to dealing with. Because of this, I offered up my skills in video editing to keep as many elements as we could (virtual career fair event, virtual opening

ceremony, and virtual awards ceremony). The competition staff deserve the real recognition, because it's not easy to run a virtual competition as flawlessly as they did, especially with such a short transition time.

Q: What would you say to a student who is interested in learning about cybersecurity?

A: If you're interested, go for it. Looking back on my life, especially high school and college, there are lots of things I was interested in but too afraid to try. I worried I wouldn't like it or wouldn't be good at it. Turns out, you don't have to be the best at something to enjoy it (in fact, you probably won't be the best right away). So give it a shot! You might love it, and if not, at least you can say you tried.

CyberPatriot & The News

[Downriver teens compete in National Youth Cyber Defense competition](#)

"With more people than ever working from home these days, due to COVID-19 social distancing requirements, cyber attacks on remote workers has become increasingly common.

But if three Downriver teens are any indication, the future of cybersecurity looks bright.

The trio from Monroe Composite Squadron, Civil Air Patrol, recently logged into their computers to compete in CyberPatriot, The National Youth Cyber Education program created by the Air Force Association to inspire K-12 students toward careers in cybersecurity and other STEM disciplines."

[Fort Gordon Cyber District named CyberPatriot Center of Excellence of the Year for second year](#)

"For the second year in a row, the Fort Gordon Cyber District has been named the CyberPatriot Center of Excellence of the Year.

The Air Force Association's CyberPatriot Program Office announced the distinction in September. The honor is awarded to communities and institutions that provide leadership and support to further the educational experiences of their students through the CyberPatriot program, which is the nation's largest youth cyber education program. A release from the AFA said the exceptional level of involvement across all areas of CyberPatriot made Fort Gordon stand out from other outstanding Centers of Excellence."

[Top Cybersecurity Stories That Made Headlines In 2020](#)

"Cybersecurity was the buzzword for enterprises around the world in 2020. With drastic changes to the conventional functioning of offices due to COVID-19 pandemic, cybersecurity emerged as the biggest challenge. Here we discuss some of the major cybersecurity stories that made headlines."

[2020: The Year the COVID-19 Crisis Brought a Cyber Pandemic](#)

"2020 will be remembered as a uniquely disruptive year — but not just for a global health crisis. Online life was digitally transformed, as exponential change accelerated at home and work via cyberspace."

[10 Must-have Cyber Security Resources as You Plan for 2021](#)

"Combatting this past year's cyber threats proved challenging, and the hackers are already mapping out new avenues of attack for 2021. As you recalibrate your cyber security strategy and plan for the year ahead, explore resources that can help inform your security decisions."