THE CYBERSENTINEL

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

April 2021 | In This Issue

CYBER PATRIOT XIV

REGISTRATON NOW OPEN

National Commissioner's Cache

As we begin our fourteenth season of CyberPatriot (how is that even possible!), we can't help but reflect on the many changes we've seen since our earliest days. What most visibly presents itself is the DRAMATIC growth we've seen in what started essentially as an experiment. When we deployed our initial competition in 2009, eight (count 'em, EIGHT) teams of Air Force JROTC and Civil Air Patrol high school students participated. We are proud that each season nowadays brings THOUSANDS of teams—including middle schoolers—to the competition.

Even more impressive to me, though, is the horizontal expansion we've seen. We're now a comprehensive program that includes AFA CyberCamps, a robust Elementary School Cyber Education Initiative, a CyberPatriot Literature Series for pre-K students, and an innovative senior citizen program, CyberGenerations.

And equally impressive to me is the skill of the participants. Every year the competition requires more skill, more perseverance, and more teamwork. Why? Because the competitors are getting more skilled and are performing more effectively as teams. That's a tribute to them, and to the cadre of outstanding coaches who willingly volunteer each season. But the single most impressive thing we have seen isn't a change at all, but is instead a constant; it's the persistent support we receive from generous sponsors like the Northrop Grumman Foundation, AT&T, Cisco, and several others. Without them, and without the sustaining support of thousands of volunteers, including AFA's Aerospace Education Council and AFA members nationwide, none of this would be possible. My deepest appreciation to all of you.

And now, let's get on with CP-XIV! (After a fun season of AFA CyberCamps, of course…)

CyberPatriot National Finals Recap & Winners

The integrity of the virtual National Finals Competition was important, an on-site adult proctor was assigned to each student. Mostly parents or guardians, the proctors ensured the competitors followed the competition rules.

The first competition challenge was the Network Security Master Challenge. Teams had several difficult tasks and three and a half hours to complete them. They had to find and fix security issues in 7

Figure 1: CyberAegis Nobelium from Del Norte High School competing during Round 3 in CyberPatriot XIII.

Windows and Linux operating systems. At the same time, they had to maintain websites and services for their company.

A Red Team of cybersecurity professionals had the task of penetrating the competitors' systems to test their security. it was a race against time and the Red Team. Then the AT&T Component was injected into the challenge. It required teams to complete a difficult but essential, cybersecurity task, while they tried to protect their systems.

Figure 2: Aditya Desai from Design 39 campus competing in Round 3 in the Middle School Division.

The second challenge was the 90-minute Cisco NetAcad Challenge where teams were required to build a complex but secure network using the Cisco Packet Tracer network simulation tool. It was a challenge in a distributed environment to work on one problem. Teams were also provided a Cisco networking quiz that tested them on the knowledge they learned this season.

By the end of the competition, the competitors had been pressed to their limits. The demanding competition was a test of not only individual skill, but more importantly of organization, teamwork, and resiliency. Everyone gave it their best effort in this unique time.

CyberPatriot XIII National Final Winners and Award Recipients

Northrop Grumman awarded a total of $52,500 to the Open and All Service winners of CyberPatriot XIII, bringing its total scholarship contribution to more than $550,000 since becoming presenting sponsor in 2011. Scholarships are awarded to each member of the first place, runner-up, and third place teams in the two divisions.

Open Division:
National Champion: Team CyberAegis Cobalt from Del Norte High School in San Diego, CA
Runner-Up: Team CyberAegis Nobelium from Del Norte High School in San Diego, CA
Third Place: Team VAPatriot | Cyber Age is ScubaSquad from Thomas Jefferson High School for Science and Technology in Alexandria, VA

All Service Division:
National Champion: Team Runtime Terror from Troy High School in Fullerton, CA
Runner-Up: Team TXPatriot | Invicta from Roosevelt High School in San Antonio, TX
Third Place: Team Tempest from Fullerton Composite Squadron in Fullerton, CA

Middle School Division:
National Champion: Team CyberAegis Technetium from Oak Valley Middle School in San Diego, CA
Runner-Up: Team CyberBots from Toby Johnson Middle School in Elk Grove, CA
Third Place: Team CyberAegis Iridium from Design 39 Campus in San Deigo, CA

AT&T Component Winner:
Team CyberAegis Cobalt from Del Norte High School in San Diego, CA

Open Division Cisco NetAcad Challenge:
First Place: CyberAegis Cobalt from Del Norte High School in San Diego, CA
Second Place: Team Crystal from Loyola Blakefield in Towson, MD
Third Place: Team CyberAegis Nobelium from Del Norte High School in San Diego, CA

All Service Division Cisco NetAcad Challenge:
First Place: Team Tempest from Fullerton Composite Squadron in Fullerton, CA
Second Place: Team Runtime Terror from Troy High School in Fullerton, CA
Third Place: Team TXPatriot | Invicta from Roosevelt High School in San Antonio, TX

Middle School Division Cisco NetAcad Challenge:
First Place: Team CyberAegis Technetium from Oak Valley Middle School in San Diego, CA

CyberPatriot XIII Cyber All Americans
This pristine title is only awarded to those who have attended the National Finals Competition all four years while they were in High School.

CP-XIII Coach and Mentor of the Year Nomination

If you know a coach or mentor that deserves recognition, nominate them for the CyberPatriot Coach or Mentor of the Year Award.

Coach of the Year Nomination: https://forms.gle/F9HzTEgF2zUBVYAw8

Mentor of the Year Nomination: https://forms.gle/vVjRojqVrFZrffag7

These awards recognize excellence among volunteer coaches and mentors. If you think your coach or mentor is deserving of such recognition, nominate them today! **Nominations will be accepted through May 15, 2021.**

CyberPatriot XIV

April 1 marked the opening of registration for CyberPatriot XIV -- the fourteenth season of the National Youth Cyber Defense Competition.

Registration Fees:

- $205/high school team*
- $165/middle school team*

- Automatic fee waivers for JROTC, Civil Air Patrol, and Naval Sea Cadet Corps teams

- Fee waivers (upon request) for Title I schools and all-girl teams

Register by July 1 to get 20% off your team registration fee!
Payment and competitor registration are not required until the listed deadlines.

Important Dates and Deadlines:

July 1, 2021: Last day to receive 20% off team registration fee.

October 5, 2021: Last day to register your team for CP-XIV

November 1, 2021: Last day to add competitors to your roster(s)

November 15, 2021: Last day to submit payment, purchase order, or fee waiver request.

NOTE: Dates for the CyberPatriot XIV competition rounds are still being determined. A final schedule will be published once available.

RETURNING COACHES: Use your existing volunteer account to sign in and register your new team(s) for the upcoming competition season. Teams DO NOT carry over from last season.

NEW COACHES: Create a volunteer account, then sign in to register your teams(s) for the upcoming competition season.

FULL REGISTRATION INSTRUCTIONS: A PDF version of the registration instructions can be found HERE

AFA CyberCamps 2021

Looking for a way to stay engaged with cybersecurity training during the summer? Host an AFA CyberCamp at your school or organization this summer! Registration for hosting a camp is open through May 1.

Learn more about hosting a camp at https://www.uscyberpatriot.org/afa-cybercamps/getting-started/host-a-camp.

CyberPatriot has modified camp materials to be able to be conducted in a virtual environment. Host organizations can also hold in-person camps so long as they follow CDC Guidelines and their local regulations surrounding COVID-19.

Interested Campers can contact us at **afacybercamps@uscyberpatriot.org** to be added to a list of individuals who will be notified once camp locations are released. Registration for CyberCamps is at the discretion of the organization's hosting the camp. Some camp hosts will share their registration information with CyberPatriot to post to our website, while others will choose not to share the information. The list of open camp locations and registration information is we can share it will be released the first week of May.

Order of Merit Recipient |Dr. Greg White Director, CIAS

Dr. Greg White's roots go back to the start of CyberPatriot, with his presence at the very first CyberPatriot event. As the program grew, Dr. Greg White and his team at CIAS was pivotal in creating a competition system that could grow with CyberPatriot.

The Order of Merit is given to individuals for sustained superior achievement in promoting the objectives of the AFA's CyberPatriot Program. As Director of the Center for Infrastructure Assurance and Security (CIAS) at the University of Texas – San Antonio – CyberPatriot's Founding Partner - Dr. White has played a key role in supporting the program from the very beginning. Dr. White is just one of just a handful of distinct individuals to have received this honor.

CyberPatriot Shoutout

The Fort Gordon Center of Excellence awarded Superintendents and School Boards is the district

The Fort Gordon Center of Excellence won the COE of the year two years in a row and attributes its success to the hard work of the Fort Gordon Cyber District / Alliance for Cyber Education subcommittee in all seven school districts and three private schools within the COE's region. The highly engaged committee meets quarterly to discuss implementation strategies for the various CyberPatriot programs. To recognize the hard work that made the Fort Gordon COE a success, they shared their COE of the Year Award with the Columbia County, Richmond County, and Aiken County Superintendents and their respected school boards.

K12 CyberTalk features CyberPatriot in their latest webcast

Rachel Zimmerman, Rebecca Dalton, and Frank Zaborowski were interviewed in the newest episode of K12 CyberTalk webcast. K12 CyberTalk is on a mission to explore cybersecurity and empower K12 students to pursue a career in cybersecurity. You can check out the latest episode on CyberPatriot HERE.

CyberTitan IV

The CyberTitan IV Canadian National Finals is on the horizon and excitement is in the air! The scores are in, and out of over 150 competing teams, the top ten in the country have been selected. The CyberTitan organizing team at ICTC are very proud of how well all of the teams did throughout this year's competition, particularly during this uncertain time. Emerging from four provinces, our ten teams are gearing up for the CyberTitan National Finals.

The CyberTitan IV Finalists are:
- Olympians Ares from Old Scona Academic, AB
- Olympians Artemis from Old Scona Academic, AB
- DDR1 from Sisler High School, MB
- Inspect The Element from Sisler High School, MB
- Premature Optimization from William Lyon Mackenzie Collegiate Institute, ON
- Teapot from William Lyon Mackenzie Collegiate Institute, ON
- FalconTech Plagueware from Centre Wellington District High School, ON
- 6ixside from Earl Haig Secondary School, ON
- FalconTech Terabytches3.0 from Centre Wellington District High School, ON – All-female wildcard team
- CyberDragons from Nashwaaksis Middle School, NB – Top Middle School Team
- RCSU-Northwest1 from Canadian Cadets – Exhibition Team

New this year we are welcoming an exhibition team from the Canadian Cadets. The Cadets have been provided an opportunity to participate in the Finals to experience and learn about the competition firsthand; however, since they are not in our top 10 they will not be in the running to be crowned the CyberTitan National Champions.

Good Luck to all of our CyberTitan IV Final Teams!

Meet the CyberPatriot Staff

An Interview with Darren "Nick" Greene | CyberPatriot Program Coordinator

Q: As the newest member of the CyberPatriot team, how was your first experience with a virtual competition season and joining the team while working virtually?
A: Being a part of the CyberPatriot team has been a wonderful experience. I am passionate about providing resources and opportunities to empower youth to excel in their academic and career achievements and working with people with similar goals is truly refreshing and rewarding. Although working virtually offers its challenges and benefits during these unprecedented times, I have been impressed with the adaptability of not only the staff but the students, coaches and mentors as well to supplement and continue with the largest cybersecurity competition in the United States. The hard work and efforts created by all ensured another successful competition season and it has been gratifying to be an integral part of fortifying our youth in the ever demanding and fluid world of cybersecurity. I have learned much myself.

Q: You have a large role with CyberPatriot's non-competition programs. Of the other programs, which is your favorite?
A: All of the CyberPatriot non competitive, educational programs have relevance, and are dedicated to protecting people from cyber maladies that are a part of our world today, especially since we have rapidly moved from an industrial to technological society. But if I had to pick a favorite one, I would have to say CyberGenerations. The senior population is one of the fastest growing population as people in general, are living longer. Simultaneously, our technological society has become an extension of our culture and how we live. Consequently, the exponential growth of comprehending and applying technology to safeguard our personal information is a necessity; and our elderly population is not void of the

challenges. In fact, they are just as vulnerable, if not more to cyber threats, scam and frauds. I think practically everyone knows of an incident where a senior has encountered these malicious activities. CyberPatriot's CyberGeneration program offers a unique opportunity to educate the elderly population of these threats and prepares to safeguard them. On a personal level, what I have learned from CyberGenerations has allowed me to protect my own parents from phishing scams, ransomware, medical fraud, and other attacks that threaten the security of the senior population.

Q: You have some exciting news about a new initiative with CyberGenerations, can you tell us a little more about what will be launching next year?
A: Yes! The CyberPatriot team is working on opportunities to offer synergy between technologically savvy students and CyberGeneration participants virtually as well as in person. We are launching an exciting and innovated approach to having college students participate as Tech Caregivers to offer workshops to CyberGeneration participants. Using a curriculum designed to teach seniors about identifying threats and creating safeguard strategies, we are fortifying seniors to with the help of college students keep their information protected, secured and less vulnerable to cyberthreats.

Q: Prior to CyberPatriot, you worked with NASA, do you have any fun stories that our CyberPatriot competitors would like to hear?
A: Working at NASA in the Department of Education was a wonderful experience and has certainly helped me in my role as Program Coordinator for CyberPatriot. I had the opportunity to meet with real live astronauts, rocket scientist and some really smart people. Even had an opportunity to touch a piece of an asteroid that was over 3 billion years old! I think one of the funniest stories is when we had a booth at a conference, and at the booth, we had a simulation of what it was like to wear astronaut gloves into outer space and to work with tools. We had high school students come to the booth and this one, very athletic student came up to simulator and said, "I want to be an astronaut…this will be a piece of cake!" I informed him it looks easy, but you might find it harder than it looks. He told me, "I'll give you my laptop if I can't do it!" I smiled and said, "Let's proceed!" He inserted his hands into the gloves and tried to use tools to make a repair. A few minutes later he said his arms were tired and he could not complete the task. All his friends were saying, "Ah man, you gotta give up your laptop now!" He gave me this look as if to say, please sir…don't take my laptop!" I chuckled a bit and finally said to him, "Young man, I think you learned a valuable lesson today. I would rather you keep your laptop and use it to improve the quality of space suits someday so when you become an astronaut, you will be the best at repairing things in outer space." He smiled and said, "Deal! We all laughed, and I hope to see him become an astronaut someday.

CyberPatriot & The News

This Program Prepares Military Kids for Tech Future | By Elizabeth Aslakson
In the next five years, experts predict a shortage of nearly 2 million cybersecurity professionals in the U.S. CyberPatriot (CP), a national youth education program, hopes to fill this gap by recruiting and engaging future leaders. The CP program, created by the Air Force Association in 2009, inspires K-12 students to pursue cybersecurity and STEM fields by helping develop technical skills, expanding critical thinking and preparing for the challenges of the future.

Bob Jones AFJROTC accepts laptop donation from Aleta, MITRE | By Gregg Parker
MADISON – Two local businesses have equipped Bob Jones CyberPatriots with laptops that are essential for Science, Technology, Engineering and Mathematics or STEM contests.
Bob Jones CyberPatriots with Air Force JROTC received laptop computers from Aleta Technologies and MITRE.

CyberPatriot Crowns National Champions in Virtual National Finals
ARLINGTON, Va., March 22, 2021 /PRNewswire/ -- The Air Force Association (AFA) announced today winners of the National Finals Competition for the CyberPatriot XIII season.

The CyberPatriot XIII National Finals Competition was held virtually on March 19-21, 2021. This is the second year that the finals transitioned to a virtual format due to the COVID-19 pandemic.

The CyberPatriot National Youth Cyber Defense Competition, presented by the Northrop Grumman Foundation, puts teams of high school and middle school students in the position of newly hired IT professionals tasked with managing the network of a small company. Through a series of online competition rounds, teams are given a set of virtual operating systems and are tasked with finding and fixing cybersecurity vulnerabilities while maintaining critical services.