COMMISSIONER'S CACHE

Three experiences in the past weeks reminded me just how far CyberPatriot— YOUR CyberPatriot—has come in its relatively short life.

Incident #1: A phone call from a staff member at the U.S. House of Representatives was an unsolicited request for me to participate in an upcoming panel on cyber workforce development. CyberPatriot, I was informed, has become such a major factor in developing cyber talent that they wanted to hear what we are doing that might be extended to other STEM programs, because "It's clear AFA's CyberPatriot program is doing all the right things."

Incident #2: An email from a staffer in the U.S. Senate asked if I might be quoted in a media release regarding important STEM education correspondence originating in the Senate.

And Incident #3: As I took my seat by a particularly engaging fellow passenger on a flight about to leave Reagan National Airport, I was asked by him "So what do you do?" I responded that I have the honor of leading AFA's National Youth Cyber Education program. His response was gratifying. "This is amazing! I just finished attending a cyber education conference in the area, and EVERYONE was talking about CyberPatriot! How can I get involved?" I could fill pages with similar experiences over the past weeks and months.

We are growing, and we are having positive, wide impact on the nation's STEM needs and more particularly on its cyber education needs. And it's all done because YOU are supporting us. From our generous sponsors (led by Northrop Grumman Foundation), to our educators, to our coaches, to our mentors, to our wonderful AFA volunteers, this is working because of YOU. Thank you!

Bernard K. Skoch | National Commissioner

DATES TO KNOW

JUL. 1	End of 20% discount on reg. fees
JUL. 12	Start of Exhibition Round 2
AUG. 7	End of Exhibition Round 2

1,800 TEAMS AND COUNTING!

How many teams will register for CP-X?

Send us your best guess!

EXHIBITION ROUND BEGINS — TRAINING AND 64-BIT SYSTEMS NEXT UP

The next Exhibition Round will be held Jul. 12 - Aug.7. Windows and Ubuntu operating systems will be the virtual machine images (images) used for the round. The Exhibition round is not scored . It is a time for registered Coaches to recruit team members and supporters. Only the Coach must be registered. Participants do not have to be registered.

Teams should review the CyberPatriot training materials on the Coach's Dashboard. Concepts and skills learned through the lessons are the foundation of the competition challenges. There is a PDF file with links to supplementary videos for each operating system module on the dashboard. The videos are only eight minutes long and cover the important aspects of the lessons.

All registered teams are invited to participate in the Sneak Preview in September. It will be a chance for teams to test drive the new version of the CyberPatriot Competition System. The Sneak Preview will last for several hours on a Saturday in Sept. No date has been determined because the Sneak Preview is based on the software development. Part of the event will be the use of a 64-bit operating system image that requires a 64-bit host system. The training round will be held Sept. 15 - Oct.

10. During the round teams will have access to images with answer keys.

The Practice Round will be the final training event. It will be held for 10 days in October.

To successfully compete in CyberPatriot X, teams must have 64-bit host systems that are compatible with VMware Workstation Player 12.5 and meet CyberPatriot technical specifications. Images requiring 64-bit host operating systems will be used during the season. For technical specifications please visit http://uscyberpatriot.org/competition/Competition-Overview/technical-specifications.

WHERE ARE THEY NOW? CYBER ALL–AMERICAN JOSHUA KLOSTERMAN

Lots of students have gone through CyberPatriot, and it's always nice to hear what our alumni are up to. This month we talked with Joshua Klosterman, a Cyber All-American Award recipient from Big Sioux Composite Squadron (Brookings, SD). Check out what he's been up to since his time as a CyberPatriot competitor!

Current/future plans
"Currently, I work for the The MITRE Corporation as a Graduate Cybersecurity Intern. I work at the National Cybersecurity Center of Excellence (NCCoE) to research and build solutions with the National Institute of Standards and Technology. I received my undergraduate degree from Dakota State University this May, and will hopefully graduate with a Master's degree in May 2018.

Over the next few years, I hope to have a significant impact on the security posture of our nation. I enjoy helping to improve the lives of others, and I hope I can continue to do so."

Cybersecurity goals
"Besides my current pursuit of a Master's degree, I'm currently studying for the Certified Information Systems Security Professional exam. Completing this exam, as well as a few other requirements, will enable me to attain this industry certification. I'm also working on several research projects at the moment, and hope to publish at least one paper within the next year."

How CyberPatriot has helped you over the years
"CyberPatriot jump-started my passion for cybersecurity. My team first competed in CyberPatriot IV, and I can recall studying and training for hours every week to improve. Somehow, we ended up qualifying for National Finals that year! CyberPatriot definitely helped develop my work ethic and love for cybersecurity. I was lucky enough to compete for 4 years, and helping to mentor and train kids in cybersecurity has been one of the most fun experiences I've had."

Want to share your story?
Contact the CyberPatriot Program Office today!

SPONSOR PROFILE: MASTERCARD

Welcome, Mastercard! This month, Mastercard Inc. has become the program's newest Cyber Silver level sponsor.

"We are delighted to welcome Mastercard to a wonderful select group from industry and government working with AFA to promote cybersecurity and STEM education in America and beyond," said Bernie Skoch, CyberPatriot National Commissioner. "Mastercard is respected and admired worldwide as the global leader in electronic payments. They know technology, and they know cybersecurity. And they know our partnership will allow us to reach many thousands more youth in diverse populations with the excitement of our growing National Youth Cyber Education Program."

MasterCard is a driving force at the heart of commerce, enabling global transactions and bringing insight into the payments process to make commerce faster, more secure, and more valuable to everyone involved. As a critical link among financial institutions and millions of businesses, cardholders and merchants worldwide, MasterCard provides services in more than 210 countries and territories. MasterCard advances commerce worldwide by developing more secure, convenient and rewarding payment solutions, processing billions of payments seamlessly across the globe, and building economic connections that accelerate business

The support of Mastercard allows CyberPatriot to continue expanding its programs and encourage STEM education among America's youth.

Have CyberPatriot-related news you want to share? Don't be shy! Tell us about it and you just might see it in the next newsletter!

info@uscyberpatriot.org

Coaches' Corner

- **CyberPatriot X Registration is OPEN.** All current coaches who plan on participating in the CyberPatriot X competition season (2017-2018) must re-create their teams for the new season. CP-IX rosters have been removed from the volunteer dashboard. You will be assigned a new team number for the next season upon re-registering. Click here for full registration instructions.

- **Exhibition Rounds.** The sooner you register a team, the more access to practice images you'll have over the summer months. Exhibition Round images will be sent to registered CyberPatriot X coaches. A new exhibition round will begin July 17. Students do not need to be registered in order to participate in an Exhibition Round, nor do team fees need to be paid.

- **Recruitment Material Available.** Request handouts free of charge! Click here for more information.

SPOTLIGHT: "CYBER NINJAS"

"Cyber Ninjas" Tell it Like it is ... and Companies are Listening

Northrop Grumman was recently named one of the best places to work for Cyber Ninjas (by Marynoele Benson, NGC)

Earning a spot at the top, Northrop Grumman was named among the best places to work for Cyber Ninjas, according to a recent report issued by the SANS Institute, a global leader in information security training.

"Cyber Ninjas" are defined as those cybersecurity experts whose day-to-day tasks require higher-level technical skills. The report features interviews with employees from the top-rated government system integrators who discussed what they deemed most critical for recruiting and retention.

"Our goal is to show there are a bunch of companies doing it really well," said Alan Paller, director of research, SANS Institute. "That should maximize the pressure on others to try to be more like the leaders and thereby improve productivity across the cybersecurity field."

Told through the eyes of the employees, the interviews show the "how and why" of effective recruiting and retention. "The most important thing to me is being able to do challenging and engaging work," said Jack Baker, Northrop Grumman cyber professional working on the company's cyber threat assessment and awareness team. "The mission is a bonus - doing challenging projects for the right purpose is really great."

"Look at their leadership - you want to see diversity, technical experience and leaders who engage with their employees for constant feedback," said Lauren Mazzoli, a Northrop Grumman cyber systems engineer, responding to a question about assessing potential employers. "You want to know the organization is made up of people who are willing and able to help you, support you and get you where you want to go."

In 2016, the Center for Strategic and International Studies (CSIS) report, Recruiting and Retaining Cyber Ninjas, published results of an in-depth survey of 284 cybersecurity professionals that identified key factors that characterize employers of choice for cyber ninjas. This follow-up report by SANS provides an initial answer to the question many potential employees ask: which employers provide the best environment to get the most out of top-performing cybersecurity professionals.

The report ranked employers on their success in recruiting and retaining a critical mass of cyber ninjas, names leaders in that ranking among federal IT contractors and adds substance to the CSIS findings by initially naming two of the best places to work and publishing interviews with ninjas who work for those leading employers.

Northrop Grumman, Best Places to Work for Cyber Ninjas

Northrop Grumman's Jack Baker and Lauren Mazzoli represent two of the four candidates highlighted in this first set of interviews.

Northrop Grumman is a leading provider of full-spectrum cyber solutions to the United States government and to allied nations around the world. The company builds cyber into every system, platform, and product that it produces in order to enhance mission assurance and resiliency, while investing both in innovative technology and cyber talent of the future. For information about careers in cyber, go to http://www.northropgrumman.com/careers .

To hear more from our professionals about employment with Northrop Grumman, click here: https://www.themuse.com/companies/northropgrumman/people/lauren.

The SANS Institute was established in 1989 as a cooperative research and education organization. Its programs now reach more than 165,000 security professionals around the world. A range of individuals from auditors and network administrators, to chief information security officers are sharing the lessons they learn and are jointly finding solutions to the challenges they face. At the heart of SANS are the many security practitioners in varied global organizations from corporations to universities working together to help the entire information security community.

SANS is the most trusted and by far the largest source for information security training and security certification in the world. It also develops, maintains, and makes available at no cost, the largest collection of research documents about various aspects of information security, and it operates the Internet's early warning system - the Internet Storm Center.

Computer Security Training & Certification

SANS provides intensive immersion training designed to help you and your staff master the practical steps necessary for defending systems and networks against the most dangerous threats - the ones being actively exploited.

Information Security Research

Many of the valuable SANS resources are free to all who ask. They include the very popular Internet Storm Center (the Internet's early warning system), the weekly news digest (NewsBites), the weekly vulnerability digest (@RISK), and more than 1,200 award-winning, original information security research papers.

TEAM SPOTLIGHT: CYBERAGEIS ESPEON

Hannah: My CyberPatriot team has meant so much to me - not only do I get the opportunity to explore the world of cybersecurity, but I get to learn while bonding with amazing people who I would've otherwise never met. The CyberPatriot environment gives you the unique opportunity to learn about a field that most high schoolers don't get to explore, while working with all different kind of people. The friends I've made at CyberPatriot are truly one of a kind, and the leadership, cooperation, and studying skills I've learned are invaluable.

Maddy: When we first formed our team, we instantly clicked... These girls made the hours of work so much more enjoyable. They inspire me everyday to put 100% into everything I do, to always be kind, and to be the best that I can be. These girls have become more than just a team to me, they're like my family.

Lucy: Cybersecurity is fast paced, but it's exhilarating. There's so much to learn, there's so much to do, and so little time. Competing in CyberPatriot is like opening a door to another world— the second that image starts up, you're gone. But even so, you're not alone. You have your team right behind you, full of support and fighting spirit, ready to help you whenever you need. It gives you a lot of confidence, really. So throw open that door. I'll see you on the other side.

Anjali: Espeon has undoubtedly been my favorite CyberPatriot team. The defining qualities are the support of one another and absolutely positive attitude. We always try to help one another be our best. It's probably because we are all girls, but each one of us is definitely connected on a personal level. We are more than a team. We are good friends, beyond Espeon.

Shruti: When I tell my friends outside of CyberPatriot what exactly the club entails, their eyes undoubtedly light up with some mixture of surprise and some sort of pity. They ask, "You're telling me you guys have four hour classes, six hour competitions, and you guys meet for hours on end each week by yourselves to prepare? Isn't that terrible?" I then spend at least 15 minutes explaining why it's the exact opposite...I can't put into words how much I love my team. It's almost crazy how well we work together. CyberPatriot has brought me into a field of a science I wasn't completely aware of beforehand, and has given me countless opportunities, but even more, it has given me a real group of friends who I know I can look to for laughs, memories, and support.

Arushi: The things I've learned through the competition are invaluable and necessary in our increasingly technology-centered society. CyberPatriot has also given me the chance to bond with the amazing people on my team. Thanks to CyberPatriot, I've learned a lot more about cybersecurity, built skills in cooperation, communication, problem-solving, leadership, and made some great friends and great memories along the way.

Lily: The CyberPatriot competition offers more than just an experience for my team. The opportunity to compete and challenge ourselves not only teaches us cyber security but also prepares us for the future. The competition requires team effort and that is what Espeon embodies. We teach one another while providing spirit and support which makes the training all the more fun. And when competing, we always have each other's backs which further strengthens our team's fortitude.

THIS MONTH IN CYBER HISTORY

July 2, 1953 — On this day in cyber history, IBM announced its 650 series of computers, which were used during the remainder of the decade. The 650 was a two-address, bi-quinary coded decimal computer (both data and addresses were decimal), with memory on a rotating magnetic drum. Character support was provided by the input/output units converting punched card alphabetical and special character encodings to/from a two-digit decimal code. The 650 was marketed to business, scientific and engineering users as well as to users of punched card machines who were upgrading from calculating punches to computers. It stored information with up to ten decimal digits on a rotating magnetic drum and received it on programmed punch cards.

The IBM 650 was the world's first mass produced computer. Almost 2,000 systems were produced, the last in 1962.

For more information, visit:
http://www.computerhistory.org/tdih/July/2/
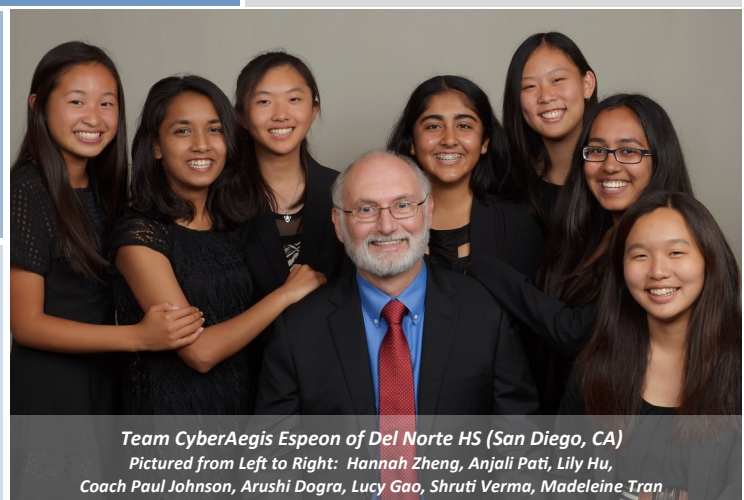
Team CyberAegis Espeon of Del Norte HS (San Diego, CA)
Pictured from Left to Right: Hannah Zheng, Anjali Pati, Lily Hu,
Coach Paul Johnson, Arushi Dogra, Lucy Gao, Shruti Verma, Madeleine Tran