The CyberSentinel

Commissioner's Cache

School is over for the year, but CyberPatriot is running at full speed! The CyberPatriot Middle School Program will debut with a pilot program in Los Angeles in June. Some of you will intern at Northrop Grumman facilities. Others of you will have summer jobs related to your CyberPatriot experience. We will continue to hold our monthly coaches meetings. Volunteers will be requested to test the updated version of the CyberPatriot Competition System. Training sessions will be held for new CyberPatriot teams. Check our website and Facebook page for CyberPatriot activities. The CyberPatriot VI Competition Schedule is posted on our website. (Note that the competition rounds include a limited window on Sundays for teams that cannot compete on Friday or Saturday.) Have a safe and wonderful summer. I look forward to seeing all of you during our next competition season: CP-VI!
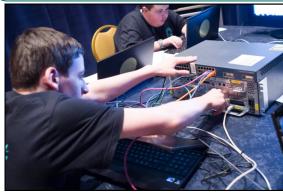
Bernard K. Skoch
Commissioner
CyberPatriot Program
Air Force Association

Program Office Bits
CyberPatriot VI Coach Registration Is Open!
Go to: **www.uscyberpatriot.org**
- **Northrop Grumman Internships**— See the link below:
  http://careers.northropgrumman.com/cyberpatriot.html
- **CP-VI competition dates can be found on Page 2.**

Competitors from MIT Lincoln Laboratory work fiercely in the Cisco Networking Event at the CyberPatriot V National Finals Competition.

CyberPatriot VI Kicks Off with First Exhibition Round

The CyberPatriot VI season is officially underway! Just a month after the end of the CyberPatriot V National Finals, teams that were already registered for CyberPatriot VI started preparing for the new season during the Exhibition Round that took place between April 22nd and May 1st.

Over 150 teams of all experience levels participated in the ten-day event. Some were tenured CyberPatriot veterans while others were composed entirely of newcomers who saw the CyberPatriot Competition System (CCS) for the first time. Yet, teams across the board proved that they were capable of success in CyberPatriot VI, as many were able to find and fix all ten of the vulnerabilities on the Windows XP Exhibition Round image.

Teams' scores from the Exhibition Round will not factor into their overall placement during the main CyberPatriot VI competition. Instead, they give an idea of how a team may perform this fall and can help Coaches tailor their training for their team's specific needs.

For returning teams, the event also provided an opportunity to re-familiarize Competitors with CCS and keep their basic system administration skills sharp. New teams learned how to solve basic cybersecurity vulnerabilities and discovered just how exciting CyberPatriot can be.

New Coaches and Mentors without teams also responded favorably to the Exhibition Round, using it as a way of recruiting students who were unfamiliar with CyberPatriot. Civil Air Patrol, U.S. Naval Sea Cadet Corps, and JROTC leaders showed off the Exhibition Round image at their weekly meetings, and Open Division Coaches scheduled special after-school sessions to drum up support and excitement for the fall rounds of competition.

Teams that have not yet signed up for CyberPatriot VI may have missed this round, but they are not out of luck. There is still plenty of time to sign up for the CyberPatriot VI season and participate in future Exhibition Rounds, as well as the scored rounds of competition.

There are already

564

Teams registered for CP-VI!

Delaware DigiGirlz DigiDevelop Their Cyber Skills with CyberPatriot in Middle School

On May 3, 2013, three members of the CyberPatriot Program Office stocked up on supplies and embarked on an arduous two-hour road trip up to Dover, Delaware, for the Delaware DigiGirlz Day. The event, a Microsoft-sponsored initiative, was aimed at increasing interest in science, technology, engineering, and mathematics (STEM) among middle school girls. CyberPatriot was one of only four STEM-oriented programs invited to Wilmington University in Dover to excite these ambitious young women about opportunities in these fields.

Manager of Competition Operations Eric Danner instructs middle schoolers on system administration techniques.

The CyberPatriot presentation included topics ranging from basic measures for online safety to information on malware threats and mitigation strategies to a primer on the system administration techniques that are used during the high school competition. The wide-ranging content was helpful for those DigiGirlz who were already familiar with some cybersecurity techniques as well as those who did not have any experience.

The DigiGirlz also applied their newly acquired cybersecurity knowledge by identifying social media best practices, performing hands-on forensics at a model workstation that was rife with cybersecurity threats, and competing in a scored image. Their great performance in all of these activities showed that, despite their younger age, they could hold their own against teams in the main CyberPatriot high school competition.

The Delaware DigiGirlz Day was a great first step for the new CyberPatriot Middle School Program, which will continue to roll out through the coming summer and fall.

CyberPatriot VI Competition Calendar

It's not too early to create a team and start getting ready for CyberPatriot VI. As Competitors move into summer vacation, keep the following dates in mind so that your team can train and succeed in the upcoming competition. Note that limited competition windows are available on Sundays of each competition round.

Oct. 10 - 24, 2013: Practice Round (Tentative)
All teams familiarize themselves with the CyberPatriot Competition System (CCS).

Nov. 15 - 17, 2013: Round 1
All teams compete online in their home area.

Dec. 6 - 8, 2013: Round 2
All teams compete online in their home area.

Jan. 17 - 19, 2014: Semifinals
The top 36 Open teams participate online in their home area. The top six teams from CAP, USNSCC and each JROTC plus six Wild Card teams participate online in their home area.

Feb. 21 - 23, 2014: State Recognition Round
Teams from each division that did not compete in the semifinals compete for remaining state awards online in their home area.

Mar. 26 - 30, 2014: The National Finals Competition
The Top 12 Open Division teams and two International Exhibition teams compete for the President's Cup in Washington, D.C. The top two teams from CAP, USNSCC and each JROTC plus six Wild Card teams compete for the Commander-in-Chief's Cup in Washington, D.C.

All rounds other than The National Finals Competition will have backup dates on the Friday through Sunday the week after each of the dates listed here. Backup dates will be used only in case of a verified disaster or community emergency.

Cyber Threats Are Everywhere, Even in Your Car!

Today's automobiles are, like everything else in society, becoming increasingly connected to electronic devices and the World Wide Web. You can access the Internet from your dashboard, track your location and route with a GPS, and take advantage of advanced electronic safety technologies.

These new features surely have great potential for making our roads safer. However, this interconnectivity also creates the potential for a devastating cyber attack. Unlike conventional cyber attacks, those that corrupt automotive electronics system do not just raise concerns about loss of personal information. They can also constitute a real threat to human lives.

According to a Detroit News report, members of the National Highway Traffic Safety Administration (NHTSA) testified on these emerging threats in front of Congress earlier this month. They noted that implementing cybersecurity must be a top priority as cars begin integrating self-driving technology.

"If there is a chance of [an attack] happening, we have to address it," said NHTSA chief David Strickland, after stating that there has not yet been a case of an attacker taking control of a vehicle remotely.

NHSTA already has already begun a program aimed at ensuring that a vehicle's overall system—which contains an average of 100 million lines of code today—cannot be corrupted by faulty data. Strickland asked for further funding from Congress to expand this program and increase research in this nascent field.

Like more conventional forms of cybersecurity, the challenge is staying at least one step ahead of the attackers. Finding vulnerabilities in any system is less difficult than instituting patches to fix them, but the latter is critical when the consequences of failure are so great.

Spotlight on New Jersey

Red Bank and the Hurricane

By Mandy Galante, Red Bank Regional High School Coach

CP-V Round 1 was a complete bust for Red Bank Regional High School (Team RBR).

The team was talented, motivated, and had practiced hard. Round 1 should have been a doable challenge—maybe not easy, but nothing to stress out over.

But Team RBR not only stressed out during Round 1, it hit a wall. The reason: Hurricane Sandy. The huge storm walloped New Jersey on October 29th, a mere 18 days before Round 1.

Our communities were smack in her path. For 13 days, we had no power, no heat, and for many students in our district, no homes. Two of our Competitors live in Union Beach, a town that was almost wiped off the map. While everyone came through the storm safely, the aftermath was grueling. School was closed for two straight weeks. Instead of practicing security hardening, we were removing water-soaked debris out of our neighbors' homes.

Our "Jersey Strong" school community rallied to recover. We held clothing drives, adopted families for the holidays, spent weekends serving hot meals, and wrote grants to replace our computers. When the lights, heat, and Internet came back on, our team was grateful to return to the classroom. We were confident that Sandy was just a speed bump that wouldn't really affect our performance.

Coach Mandy Galante (left) and her CP-III Red Bank High School championship team meet Vint Cerf, one of the "fathers of the Internet" in 2011.

We were wrong. Sandy exacted a huge toll on our Competitors, in terms of both their training and their stress levels. During the first round, the students did not work as a team; no one person can handle this competition alone. They forgot to stick to their plan and document their steps, so they kept trying to fix things that had already been fixed. Most importantly, they forgot to have fun. They just had too many other things on their minds. And so, Team RBR went home with a score of 80% on an image on which they could have absolutely achieved a perfect score.

When the Competitors came to the next practice, I was happy to see that they had returned to their good humor and were looking at Round 1 as a lesson learned. As we learned from Hurricane Sandy, bad stuff can happen even when you are strong and prepared. And like they did during the aftermath of the storm, our team had the right attitude to move forward. They recovered from their disappointment and performed great in the next two rounds. Team RBR ended the year as the top Open Division team in New Jersey and, in my book, the team with the most heart.

New Jersey and CyberPatriot: The Facts

- **CyberPatriot V State Champions:**
  - All Service: Piscataway High School, Piscataway, New Jersey
  - Open: Red Bank Regional High School, Little Silver, New Jersey
- **Participation per year:**
  - CyberPatriot II: 3 Teams
  - CyberPatriot IV: 25 Teams
  - CyberPatriot III: 15 Teams
  - CyberPatriot V: 32 Teams
  - CyberPatriot VI: 7 Teams (Pre-registered)
- **CyberPatriot III President's Cup Champions:**
  - Red Bank Regional High School, Little Silver, New Jersey

Passaic NJROTC's Fruitful Inaugural Season

James Nuyen, AT1 (AW/NAC), USN, Ret.
Passaic High School NJROTC Coach

When I made an announcement to the 400+ cadets at the Passaic High School NJROTC about starting a CyberPatriot team, the initial response was: "What's that?"

But after I explained how this exciting cybersecurity competition works, I was bombarded with volunteers. It was difficult narrowing down all of these candidates to a team of 10, but somehow we managed to do it. The next challenge was getting the Competitors' parents to answer the verification email. We needed to get everyone signed up so they could learn and prepare during the Practice Round.

Once that hurdle was out of the way, the team came together nicely and worked very well with one another. They used the CyberPatriot training materials to get a feel for what to expect and then dove in headfirst. Our "Starting Five" helped the rest of the team grow in their cybersecurity capabilities.

The Passaic NJROTC team.

When the competition dates rolled around, I suggested strategies for how to solve certain problems and helped devise a plan for using the allotted time efficiently. The team fully understood that I would hold them accountable to all the rules of the competition.

In the first year of competition these outstanding 10 cadets just missed the semifinals, but still achieved great things. They placed second among NJROTC teams in the consolation round and were the runners-up in the state of New Jersey.

I am extremely proud of these cadets and am grateful for how much I learned about them as individuals. My special thanks to Samuel Frank of Passaic High School for stepping up as the team Mentor.

See you in Cyber Patriot VI!

Get Involved!

Want to see your team or state featured in next month's Spotlight section? Send an article, blurb, picture, or idea to info@uscyberpatriot.org and show the rest of CyberPatriot that you got what it takes!

CyberPatriot Competitor Wins Computing Award
By Arthur Celestin, Southwest High School Coach, and Ryne Smith, CyberPatriot Operations Coordinator

CyberPatriot congratulates Narda Mendez, a Competitor on the Southwest High School Open Division team, for winning the 2013 Central Texas Affiliate Award for Aspirations in Computing! The award was presented by the National Center for Women & Information Technology (NCWIT), an organization aimed at increasing female participation in computing and technology. Recipients are selected for their computing and IT aptitude, leadership ability, academic history, and plans for post-secondary education.

Narda was a member of the all-women CyberPatriot team that was profiled in the CyberSentinel in January 2013. She is a CompTIA A+ Certified IT Technician and recently attended the Texas Workshop Commission Forum on the importance of IT certifications. She also serves as a tutor for the CyberStar program that focuses on exposing middle school students in her district to cybersecurity. She has spoken about her knowledge on local radio shows. For her accomplishments, Narda has earned a full ride to Texas A&M University, where she will pursue a degree in Oceanographic Engineering beginning this fall.

Narda is certainly deserving of this prestigious award, and CyberPatriot wishes her success in her future endeavors.

Narda Mendez shows off her 2013 NCWIT Award.

This Month in Cyber History
On May 3rd, 1973, Gary Thuerk, a marketer for the Digital Equipment Corporation, sent the first known spam email. Instead of individually emailing roughly 400 individuals—as was the norm at the time—Thuerk wrote an advertisement for a computer and mass emailed all the users on his list in a single message. His recipients responded negatively to his action. (Source: www.computerhistory.org)

For more information go to: http://www.computerhistory.org/tdih/May/3/

Gary Thuerk celebrates his profound accomplishment.

(Source: computerworld.com)

Northrop Grumman Foundation Furthers CyberPatriot Growth with Renewed Three-Year Commitment

- *Multiyear grant to support cyber competitions through 2016*
- *Program expands to middle schools and internationally*

The Northrop Grumman Foundation announced in March that it will continue as presenting sponsor of CyberPatriot with a $4.5 million, three-year grant to the Air Force Association (AFA).

As the largest contributor to the program since signing on in 2010, the Northrop Grumman Foundation will continue its support of CyberPatriot competitions VI through VIII, and will build on the program's extraordinary growth by expanding into middle schools and internationally. This support will help build a global pipeline of cyber defenders to meet the growing demand for cyber pros to keep our networks safe.

"We are thrilled to partner with the Air Force Association and again be the presenting sponsor of CyberPatriot. We've seen explosive growth in the competition, with students from diverse backgrounds and from every corner of the U.S. participating and getting excited about careers in cybersecurity," said Sandra Evers-Manly, president of the Northrop Grumman Foundation. "We share a mission to help improve the quality of STEM education from early grades through the university level. Through CyberPatriot, we can reach out into schools across the country and around the world to teach and inspire students to explore the exciting world of cybersecurity."

In addition to the foundation's support, Northrop Grumman Corporation contributes employee volunteers, expertise and resources to CyberPatriot, as well as scholarship funds for the winning teams. The company also provides internships to a number of CyberPatriot competitors, as do other industry and government organizations. These internship opportunities serve both CyberPatriot participants and cybersecurity employers as the nation strives to fill the critical need for cyber professionals.

"This commitment will allow AFA to expand the program to middle schools, which is a pivotal time when students are determining their interest in the STEM disciplines," said Diane Miller, Northrop Grumman program director, CyberPatriot. "This age group is operating in a cyber-enabled world so it's critical that we increase their awareness of cyber safety, cyber defenses and the life skills needed to succeed in this burgeoning career field. Our continued commitment will also ensure international expansion of CyberPatriot to cultivate young talent and build a global team of qualified cyber defenders."

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