



# The CyberSentinel

## Commissioner's Cache



Congratulations CyberPatriot competitors! You made it through our most challenging season of competition yet! And with our new competition system (CCS) and the addition of digital forensics to the Semifinals you were faced with new and more difficult challenges than teams in previous years. The teams that participated in the Consolation Round and the Semifinals were given time management issues not seen in previous rounds of competition. In the end we had the best year of competition so far. Thanks to our coaches and mentors who selflessly dedicated many hours of their time to give you the opportunity to compete in a challenging, fair, and safe environment. The national finalists will be arriving soon in the Washington, D.C., area to attend The National Finals Competition. This year Cisco will conduct the Networking Event to challenge our national finalists to build and secure a network. Joining the competition will be Splunk with their monitoring software that will assist teams in the Network Security Event. Again, this year's competition is an international competition, with two teams attending from Manitoba, Canada. Thank you for a superb effort this season. CyberPatriot keeps getting bigger and better and it is because of you!

Bernard K. Skoch  
Commissioner  
CyberPatriot Program  
Air Force Association



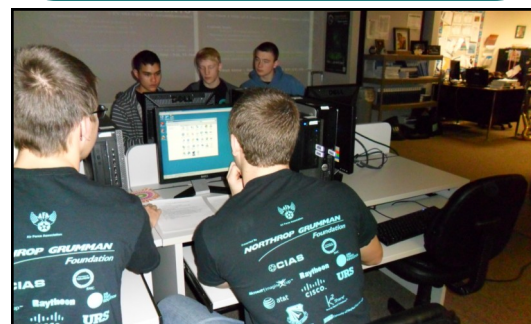
## Program Office Bits

### CyberPatriot VI

#### Pre-Registration is Underway!

Go to: [www.uscyberpatriot.org](http://www.uscyberpatriot.org)

- *CyberPatriot V National Finals Competition: March 14-16, 2013*
- State standings will be released following the CyberPatriot V National Finals Competition.



*The Summit Technology Academy team of Lee's Summit, Missouri, competes in the CyberPatriot V Semifinals. The team will compete in the CyberPatriot V National Finals Competition in Washington, D.C., during March 14-16, 2013.*

## Competitor Interns with Northrop Grumman; Monitors Global Network

As an intern with the Northrop Grumman Cyber Security Operations Center (CSOC) in Annapolis Junction, Md., Greg Bekher monitors the Northrop Grumman Global Network (NGGN) and designs computer security tools. He developed skills needed for the internship by participating in CyberPatriot.

Greg is from Laurel, Md., and just started his junior year at Chesapeake Science Point Public Charter School in Hanover, Md. As captain of his CyberPatriot team at school, he says his participation in the program was great preparation for his CSOC work. "The cybersecurity competitions helped me develop skills to recognize malicious presence within computers and networks," Greg says.

Greg says he enjoyed computers



*CyberPatriot Competitors are given a top priority for Northrop Grumman's paid internship positions.*

and electronics from a young age. "The skills I developed came in handy when my school's computer teacher asked me to help start our school's cybersecurity club, which eventually participated in CyberPatriot," he says.

Working in the CSOC, Greg says, is very much like hunting for treasure. "It's always fulfilling to find a gem in the data we receive, do

research on it, and then mitigate the problem."

Greg first started working for Northrop Grumman last May as a summer intern and continues to work each Saturday throughout the school year.

His technical skills such as programming, Linux CLI, and logical analysis are truly ahead of average teenagers," said his manager at Northrop Grumman.

Being a cyber defender, Greg says, keeps him very engaged. "It's a huge responsibility. There's always something new popping up, and this keeps me engaged. Writing new tools keeps me motivated. I see applications for my work, software and ideas everywhere in the

*(Continued on Page 4.)*

## Coaches' Corner

- **CyberPatriot V Survey.** The CyberPatriot V Post Competition Survey will be e-mailed to Coaches and Mentors during March 2013.

## Features

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## Pursuing a Career in IT? Consider Microsoft Certification

By Alison Fang Yuen and Leslie Walczak, CyberPatriot Program Office

In June 2012, *The CyberSentinel* addressed the question of how job seekers can become qualified in information technology (IT) and more marketable to employers. "How to Prepare for a Career in Networking," which can be found in our online archives, describes the advantages of Cisco certification. In this article we will examine the process and benefits of becoming Microsoft certified.

Many organizations in both the private and public sector rely on Microsoft products in their day-to-day operations. As a result, Microsoft's certifications are recognized worldwide as tools for identifying valuable IT professionals.

According to the Microsoft website, to meet the distinct needs of employers, Microsoft offers certifications in the following technical categories:

- Server
- Desktop
- Office
- Database
- Developer

CyberPatriot alumni might be most interested in obtaining certification in the Server category.

Depending on the category, IT professionals can obtain up to three levels of certification: Associate, Expert, and Master (See Figure 1.). According to the Microsoft website, the levels of certification have the following implications:

**Associate** – An employee with Associate level certification has the core skills necessary to operate relevant Microsoft technology. He or she has a strong foundation on which to build a career in IT.

**Expert** – Expert certified candidates have an advanced understanding of Microsoft technology.

They can build innovative solutions to IT problems and they understand the relationships between multiple Microsoft tech-

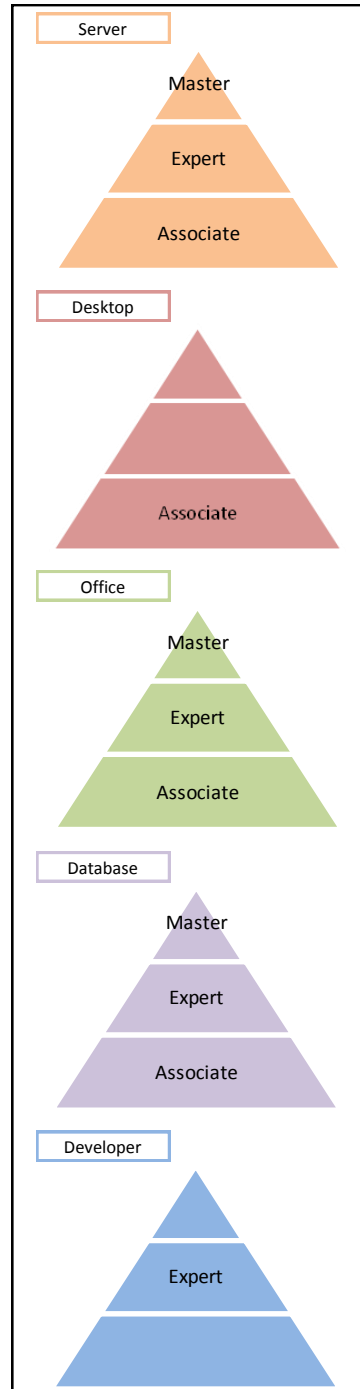


Figure 1. Levels of Microsoft Certification

nologies. This level certification is standard for IT professionals.

**Master** – Master level certification is designed for IT professionals looking to certify their ability to design and implement technical solutions to the most complex problems. Candidates for this level certification are generally seasoned professionals.

Microsoft certification exams can be completed at academic locations or commercial testing centers. The tests typically cost around \$150 and take two to four hours to complete. If you decide to register for an exam, the Microsoft Learning website provides excellent study materials and practice tests. Third party companies also offer exam preparation courses and resources.

Note that in an effort to keep up with industry trends, Microsoft sometimes updates the criteria used in its certifications. For example, in September 2012, the company retired many of its certifications and replaced them with new certifications that emphasized cloud computing. As you get closer to entering the job market, be sure to revisit the Microsoft Learning website to check that your certificates are up-to-date.

To find out more about certifications, visit the Microsoft Learning website: <http://www.microsoft.com/learning/en/us/certification-exams.aspx>.



Microsoft is a Cyber Diamond level sponsor of CyberPatriot. The company provides DreamSpark access to CyberPatriot participants, allowing competitors to enjoy an extensive library of Microsoft software at no cost.

To learn more about the Microsoft DreamSpark program, visit: <https://www.dreamspark.com/>.

### The CyberSentinel

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## Spotlight on Northern Virginia



### Marshall Academy Prepares for Cyber Careers

By Marshall Academy Cyber Security Club Parents

Marshall Academy's Cyber Security Club in Falls Church, Va., is sending two teams to the CyberPatriot V National Finals Competition.

The captain of Team 1, Kevin Houk, is a senior who helped form the Cyber Security Club last school year in 2011. In the club's inaugural year, the team made it to the CyberPatriot IV National Finals Competition. In this year's Semifinals, Marshall Academy's Team 1 had the #1 score in the nation.

Kevin started from scratch with just some computer classes at the Marshall Academy. "I heard about the new cyber club and joined," he said. "I had only heard of UNIX or DOS and had no experience with 'back doors' and 'hacking.'" This group and its mentor, Ryan Walters, have changed his life. "I now know what I want to do as a career," said Kevin. "I am applying only to colleges that have a degree program in cyber security." He is presently waiting to hear from his top college choices, Penn State and Virginia Tech.

CJ Gardner is also on Team 1 and is a junior whose college plans are firmly set on computer science. "I really enjoy discovering new aspects of computer and network security, and our mentor Mr. Walters is giving us a crash course in advanced threat detection and neutralization," said CJ, and "I think we are learning way above the normal high school level – just what I need and want!" CJ is a self-taught Linux expert and is also competing in the Virginia Governor's Cup NetWars on March 2<sup>nd</sup> along with fellow teammate Jack Lynch. CJ hopes to lead Marshall Academy to the CyberPatriot National Finals once again next year.

Sophomore Jacob Walters is the Captain of Marshall Academy CyberPatriot Finalist Team 2. Jacob is the son of the club's mentor, Ryan Walters. "I plan to follow my father's footsteps and pursue a career in computer science and cyber security" said Jacob. "Now I'm very familiar with the inner workings of both Windows and Linux platforms." Jacob's Team 2 overcame a forced restart midway through the six-hour CyberPatriot Semifinals competition, but still qualified for the National Finals. "We had to think fast and scramble, but we're a strong team and do well under pressure."

Both teams are training hard to give their best at the finals. Mentor Ryan Walters is the CEO of TerraWi, a mobile security services firm based in Tysons Corner. Ryan and his company have invested heavily in mentoring and teaching the 37 Marshall Academy Club members. Their efforts have paid off handsomely, as evidenced by Marshall's performance in the Semifinals.



**Marshall Academy Administrator Jeff McFarland addresses Marshall's 2012 CyberPatriot IV National Finalists at the Gaylord National Harbor. Team 1 Captain Kevin Houk and Mentor Ryan Walters look on.**



**Left: Team 1 Captain Kevin Houk and Team 2 Captain Jacob Walters at the 2012 CyberPatriot IV National Finals Competition.**

### Chantilly Academy Explores Careers in Cyber Defense

By Joan Ozdogan, Coach

Eleven veteran CyberPatriot Competitors of Chantilly Academy – A Governor's STEM Academy, participated in a day-long Federal IT Job Shadow Day program at the Pentagon on Thursday, February 7, 2013. Students selected to participate were members of Chantilly Academy's CyberPatriot V National Finals Competition and National Semifinal teams. Hosted by the Department of Defense Chief Information Officer and the Departments of the Air Force and Army, students toured the Department of Defense (DoD) Network Monitoring Intrusion Center, participated in a Digital Personal Protection Briefing, and heard about careers in the United States Cyber Command. During their time at the Pentagon, they were addressed by Ms. Teresa M. Takai, Department of Defense Chief Information Officer (DoD CIO).

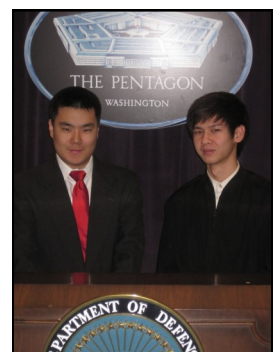


**Chantilly Academy – A Governor's STEM Academy future cyber-defenders (from left to right): Chris Kim, Liam Devoe, Weyland Chiang, Ben Meyer, Jessica Miers, Jared Ohashi, Jackie Lasky, Tanya Sutan-Tanon, Greg Zeigler and Maxime Caudebac-Wearing.**



**Above: Having just learned that the Chief Information Officer of the Pentagon is a woman, future cyber defenders (left to right) Jackie Lasky, Tanya Sutan-Tanon and Jessica Miers are encouraged in their plans for successful careers in cyber security.**

**Below: CyberPatriot V National finalists Chris Kim (left) and Weyland Chiang (right) are considering potential careers with the Department of Defense.**



## Competitor Interns with Northrop Grumman (Cont'd)

(Continued from Page 1)

world."

Greg is making a difference in the CSOC by writing security software that simplifies the job. Making a difference to Greg means changing the world and changing the way people live their everyday lives. "I anticipate the work I do today will make a difference in Northrop Grumman's systems and in the field of cybersecurity. I'm aiming for the ideas I bring to life tomorrow to make a difference in the future of computing." He plans to major in computer science/software engineering in college.

### This Month in Cyber History

The first warrant to search a computer's storage was issued on February 19, 1971. As a result of the court's decision to extend warrants to include access to computers, law enforcement agents have been faced with increasingly sophisticated encryption methods.

(Source: [www.ComputerHistory.org](http://www.ComputerHistory.org))

For more information: go to:  
<http://www.computerhistory.org/t dih/February/19/>



## CyberPatriot V National Finalists Open Division

School Name	Coach Name	City	State
Chantilly Academy – A Governor's STEM Academy	Joan Ozdogan	Chantilly	Virginia
COE-LAX/Edward Roybal Learning Center	William Diaz	Los Angeles	California
COE-LAX/Franklin High School	Yenny Yi	Los Angeles	California
COE-LAX/North Hollywood High School 1	Jay Gehringer	North Hollywood	California
COE-LAX/North Hollywood High School 6	Yolanda Gardea	North Hollywood	California
COE-SAT/Alamo Academies - ITSA New Braunfels 2	Sandi Boyd	New Braunfels	Texas
Iolani School	Lisa Miyamoto	Honolulu	Hawaii
Marshall Academy	Jason Simeon	Falls Church	Virginia
Marshall Academy	Shelli Carpenter	Falls Church	Virginia
MIT Lincoln Laboratory	Chiamaka Porter	Lexington	Massachusetts
Palos Verdes Peninsula High School	Greg Grenier	Rolling Hills Estates	California
Summit Technology Academy	Lisa Oyler	Lee's Summit	Missouri

## All Service Division

School Name	Organization Type	Coach Name	City	State
Big Sioux Composite Squadron	Civil Air Patrol	Shannon Hofer	Brookings	South Dakota
COE-SAT/East Central High School	Army JROTC	Jasper Miller	San Antonio	Texas
COE-SAT/John Jay H.S.	Air Force JROTC	John Lopardi	San Antonio	Texas
COE-SAT/Medina Valley High School	Air Force JROTC	Robert Spracale	Castroville	Texas
Colorado Springs Cadet Squadron	Civil Air Patrol	Bill Blatchley	Colorado Springs	Colorado
Covington High School NJROTC	Navy JROTC	Douglas Johnson	Covington	Louisiana
Flour Bluff NJROTC	Navy JROTC	Armando Solis	Corpus Christi	Texas
Fort Fisher Division 113FOR	Naval Sea Cadet Corps	Joseph Gombos	San Diego	California
La Cueva High School	USMC JROTC	Alberto Griego	Albuquerque	New Mexico
Leilehua High School	Army JROTC	Nicholas Spiridigliozzi	Wahiawa	Hawaii
Marine Military Academy	USMC JROTC	William Beckman	Harlingen	Texas
Monty Tech MCJROTC	USMC JROTC	Paul Jornet	Fitchburg	Massachusetts
Valor 063VAL	Naval Sea Cadet Corps	Kelly Jones	Gardendale	Alabama
Youngstown ARS Composite Squadron	Civil Air Patrol	Paul Creed III	Vienna	Ohio

### Presenting Sponsor



### Founding Partners



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