The CyberSentinel

Commissioner's Cache

CyberPatriot IV has ended and what an ending it was! The CyberPatriot IV National Finals Competition was unlike any of our previous competitions; it was bigger, it was faster moving, and it was more intense. The depth of knowledge and quick thinking of the competitors was tested as never before. For the first time a forensics event, hosted by the Defense Cyber Crime Center, was part of the competition. Each team entered a "crime scene" and had to identify and process digital evidence needed to solve a crime scenario. Two Canadian teams from Manitoba competed side-by-side with the U.S. teams in the International Exhibition and did very well. The competitors' dinner was fun with more than a dozen competitors winning prizes from an iPad to an Xbox 360 + Kinect, all kindly donated by the sponsors of CyberPatriot. In the end, facing tough competition, Alamo Academies, San Antonio, and Colorado Springs Cadet Squadron won the national championships in their respective divisions. Congratulations to all our national finalists for a job well done. Now we begin CyberPatriot V! And we think you will like the BIG changes we have planned.

Program Office Bits
CyberPatriot V Coach Registration is Open!
Go to: **www.uscyberpatriot.org**
- **Northrop Grumman Internships**— See the link below
http://careers.northropgrumman.com/cyberpatriot.html
- **CP V competition dates will be published in May.**

The National Finals Competition begins with the Open Division competitors entering the competition floor.

CyberPatriot IV National Finals Competition: San Antonio and Colorado Springs Take Top Honors

On March 23, 2012, CyberPatriot IV concluded its National Finals Competition at the Gaylord National Resort and Convention Center. Twelve teams each from the Open and All Service Divisions and two teams in the International Exhibition competed in the Network Security and Forensics events of the competition.

Out of the 402 CyberPatriot IV Open Division teams that originally registered, "Team Unknown" of Alamo Academies, of San Antonio, Texas, was the first place winner, taking home the President's Trophy.
As for the All Service Division,

out of 617 original registrants, "Wolfpack" of the Civil Air Patrol's Colorado Springs, Colorado Cadet Squadron took home first place and the Commander-in-Chief's trophy.

The Network Security Competition was powered by SAIC's CyberNEXS and featured a Red Team that attacked the competitors' computer systems. Teams were faced with protecting up to 10 operating systems, while fending off attacks from the Red Team.

New to the competition, this year, was the Forensics Competition featuring the DoD Cyber Crime Center's (DC3) Crime

Scene Challenge. In a 30-minute time slot, teams searched a "crime scene" and identified and processed digital evidence for points.

The Network Security Competition was 90% and the Forensics Competition was 10% of the overall score.

The top three teams of each division received their awards during the awards banquet and will collectively receive more than $50,000 in college scholarships from the Northrop Grumman Foundation, the CyberPatriot presenting sponsor.

For a complete list of awards from The National Finals Competition, please see page 2.

This Month's Question

What is SCADA?

(The answer appears on Page 4.)

Features

FBI Cyber Official: Current Tactics against Hackers "Unsustainable"

Shawn Henry, the FBI's top cyber official, is leaving the FBI after serving since 1989. In interviews with the FBI and the *Wall Street Journal,* he gave his thoughts on the current tactics used in cybersecurity.

The *Wall Street Journal* article quoted Mr. Henry as saying, "The current public and private approach to fending off hackers is unsustainable.'' Mr. Henry believes that instead of building defenses, changes in technology and the behavior of network users is required because computer criminals are too talented and defensive measures are to weak to stop them.

A larger issue pointed out in the *Wall Street Journal article* is the choice to either legislate or to depend on voluntary compliance to change the technology and behavior that is required to neutralize the cyber threat.

In his FBI interview, Mr. Henry said that there are three primary threats to cybersecurity:

organized crime, state sponsors/foreign governments, and terrorist groups. To counter the threats, he said that the FBI hires cyber experts and makes them agents, rather than train agents to be cyber experts. Additionally, the FBI stations agents in foreign nations to work with their police agencies to collect intelligence and apprehend bad actors who target the U.S. He said law enforcement partnerships are key to defeating threats to our networks.

To see videos of the interviews and accompanying articles, click on the following links:

WSJ: U.S. Outgunned in Hacker War

FBI: The Cyber Threat Part 1: On the Front Lines with Shawn Henry

Coaches' Corner

- **CyberPatriot V Coach Registration**. CyberPatriot V Coach Registration began on April 1, 2012. Coaches must be *registered and cleared* before their teams may register. Go to: www.uscyberpatriot.org to register.

- **Coaches' Online Meeting**. During The National Finals Competition, a coaches' meeting was held among the coaches and mentors present. A follow-on meeting will be held online in May. Details will be published via e-mail.

Northrop Grumman Foundation President Sandra Evers-Manly presents a $54,000 CyberPatriot scholarship check to AFA Chairman of the Board Sandy Schlitt.

Network Security Competition powered by CyberNEXS

CyberPatriot IV National Finals Competition Awards

Open Division
President's Cup – Alamo Academies – San Antonio, TX

Runner-Up– Lewis and Clark High School – Spokane, WA

3rd Place – Palos Verdes Peninsula High School – Rolling Hills Estates, CA

All Service Division
Commander-in-Chief's Cup - Colorado Springs Cadet Squadron, Civil Air Patrol - Colorado Springs, CO

Runner-Up – John R. Rogers High School AFJROTC – Spokane, WA

3rd Place – Clearfield High School AFJROTC – Clearfield, UT

Forensics Competition Awards
All Service Division: Big Sioux Composite Squadron – Brookings, SD

Open Division: Lewis and Clark High School – Spokane, WA

Top Service Awards
Army JROTC- Leilehua High School – Wahiawa, HI

Marine Corps JROTC- Montachusett Regional Vocational School – Fitchburg, MA

Navy JROTC- South Aiken High School – Aiken, SC

Air Force JROTC- John R. Rogers High School – Spokane, WA

Civil Air Patrol - Colorado Springs Cadet Squadron – Colorado Springs, CO

International Exhibition
Sisler High School - Winnipeg, Manitoba Canada

Garden Valley Collegiate - Winker, Manitoba Canada

Forensics Competition "Crime Scene" hosted by DC3

Spotlight on San Antonio

CyberPatriot IV, Open Division Champions: Alamo Academies (ITSA) - San Antonio. The team members received the President's Cup and a combined $12,000 scholarship check from the Northrop Grumman Foundation.

A CyberPatriot Center of Excellence, 36 San Antonio area teams participated in CyberPatriot IV. Two teams advanced to The National Finals Competition.

CyberPatriot Competitor Awarded $40,000 Scholarship

Kenneth Bias, a member of the Cyber-Patriot Alamo Academies (ITSA) team, has received the Presidential Scholarship from St. Mary's University for $40,000/year. He plans to major in Computer Information Systems. In the summer of 2011, he completed his internship at the UT Health Science Center in San Antonio and is interested in pursuing a career with Northrop Grumman or Rackspace.

Additionally, Kenneth received a $2,000 scholarship from the Northrop Grumman Foundation because of his team's first place finish at the Cyber-Patriot IV National Finals Competition.

CyberPatriot Letterman Jackets

Letterman jackets have generally been reserved for athletes, identifying a community of individuals who have excelled at a physical sport. But don't expect that at Southwest High School in the Southwest Independent School District.

The San Antonio high school recently introduced new letterman jackets to a select group of their students – CyberPatriot IV Open Division competitors, also known as the Cyber Dragons. These jackets are all-green, with the Southwest High School logo dominating the left top quadrant and a CyberPatriot patch on the left arm.

CyberPatriot IV witnessed Southwest High School's first time competing. It fielded a team in both the Open Division and the All Service Division. It quickly became a STEM initiative not only supported by the coaches, mentors and students, but also the Southwest Independent School District superintendent and the school's principal.

"The students were so motivated that they rallied their high school faculty and staff's support and interest in the competition," said Arthur Celestin, a Southwest High School computer technology educator and the coach of the Cyber Dragons. "Almost every teacher on campus heard about CyberPatriot some way or another."

Though neither of the teams out of Southwest High School made it to the national finals competition, the Cyber Dragons won 2nd place in the San Antonio Mayor's Cup II, in the Open Division category. The same team was only 3 points away from being among the 12 CyberPatriot IV national finalists.

But as a courtesy of the school's principal, JoAnn Fey, the letterman jackets were distributed to the Cyber Dragons in appreciation of their achievements, great act of leadership and strong display of hard work throughout the CyberPatriot season.

"Receiving the letterman (jacket) with the CyberPatriot patch gives me a sense of great accomplishment," said Adolfo Palomo, a senior at Southwest High School. "It shows that we've made it far enough to be recognized for our technical skills."

Fey said she chose letterman jackets because of what they commonly symbolize to all students. Further, she chose this particular group of students because she felt they could be a catalyst for change in the way of thinking about what defines achievement and success, not limiting it to sports.

SWHS's CyberPatriot Letterman's Jacket
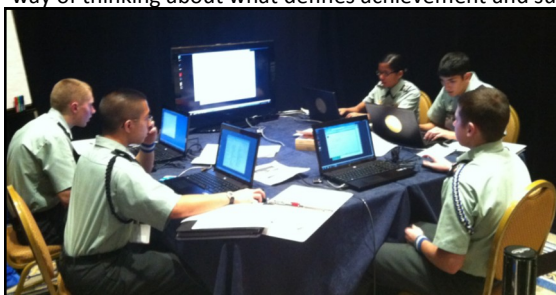
San Antonio's Douglas MacArthur High School Army JROTC team participating in the CyberPatriot IV National Finals Competition. The JROTC team competed in the All Service Division at the competition.

CyberPatriot IV, All Service Division Champions: Colorado Springs Cadet Squadron, Colorado Wing, Civil Air Patrol. The team members received the Commander-in-Chief's Cup and a combined $12,000 scholarship check from the Northrop Grumman Foundation.

Commissioner's Cache (Cont'd)

Registration for coaches and mentors has begun.   We look forward to seeing your teams advance to the CyberPatriot V National Finals Competition!
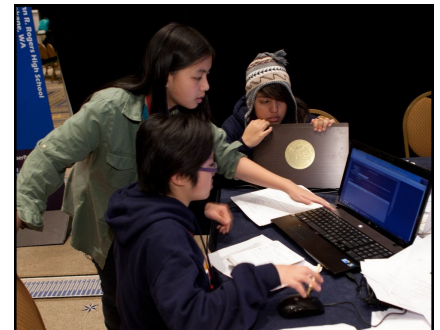
Answer to Monthly Question

The answer is: SCADA is the abbreviation for supervisory controls and data acquisition.   Sometimes SCADA is known as ICS or industrial control systems.

According to Wikipedia, "SCADA is computer systems that monitor and control industrial, infrastructure, or facility-based processes."

SCADA systems use computer networks (e.g., TCP/IP, wireless, satellite, etc.) to monitor and control water systems, electrical power distribution, industrial robots, railway systems, and fuel distribution systems, among other systems. Cybersecurity of SCADA systems is critical. A cyber attack on a SCADA system can damage infrastructure, such as electrical power plants, that could severely affect our daily lives.

The Stuxnet worm that damaged the Iranian nuclear centrifuges in 2010 is an example of the cyber threats to SCADA systems. For more on SCADA, see: http://en.wikipedia.org/wiki/SCADA

Northrop Grumman Mentors Passionate About Tomorrow's Workforce

As Northrop Grumman enters its third year as presenting sponsor of CyberPatriot, one aspect of our role continues to stand out and stir passion among employees. It's Mentoring!

Northrop Grumman employees are committed to helping the CyberPatriot students succeed. Since first signing-on as top sponsor, Northrop Grumman mentors and technical advisors have grown exponentially, from 25 two years ago to more than 125 for CyberPatriot IV.

"As the largest provider of cybersecurity to the federal government, we've got an army of incredibly qualified cyber pros energized to share their knowledge and expertise and ready to guide students towards a career in this growing field," said Diane Miller, Northrop Grumman Program Director for CyberPatriot. "These amazing individuals spend afternoons, evenings and weekends helping students and teachers organize and learn more about cybersecurity so they can be successful in the competition. It is truly one of the most rewarding aspects of our role."

During the CyberPatriot IV competition, Northrop Grumman hosted two "Mentoring Moments" events for students and coaches, featuring employees discussing "A Day in the Life of a Cyber Professional" to enlighten students about the career field, and "From Backpack to Briefcase" to educate students about academic and career opportunities. These sessions were very lively, full of questions from students ranging from information about internships to the type of coursework one should pursue in college.

Northrop Grumman volunteer mentors and technical advisors span the company, meaning they are worldwide. Mentor Danita Mitchell from Northrop Grumman Electronic Systems in Baltimore said, "It is fun and extremely gratifying for me to work with students while knowing that I am also helping build a talent pipeline for the company, and the industry I work for, at the same time."

Look for Northrop Grumman mentors in your area who can help support your teams!

Presenting Sponsor:

Sponsors:

CyberPatriot welcomes our newest sponsor: