Air Force Association's
CYBERPATRIOT
National Youth Cyber Education Program
presented by NORTHROP GRUMMAN Foundation

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The CyberSentinel

22 48 61 76 65 20 79 6f 75 20 67 6f 74 20 77 68 61 74 20 69 74 20 74 61 6b 65 73 3f 22

Program Office Bits

CP-VI Coach registration is now closed.

Features

Page
1 Commissioner's Cache
1 Round 1 Scores Released
2 Sponsor Profile: Leidos
2 Coaches' Corner
3 Spotlight on South Carolina
4 UMBC and Northrop Grumman Launch Nation's First Cybersecurity Honors Program
4 This Month in Cyber History
4 CyberPatriot Is Re-Branding
4 Join USA Today's Visions of Exploration STEM Program!

It's back! Thanks to the US Cyber Crime Conference, the Digital Crime Scene Challenge will return to the National Finals Competition for CPVI! The US Cyber Crime Conference will take place April 27 - May 2 at the National Conference Center in Leesburg, Va.

Round 1 Scores Released, Weather Impacts Round 2 Teams

Round 1 began at 9 a.m. Friday, November, 15, 2013. The first team to compete in CyberPatriot VI was the Charlotte Latin School in Charlotte, N.C. Within 30 minutes the competition was joined by a number of teams. Of the two images used during the round, most teams did well on the Windows 7 image. During the round, there were two firsts: Middle school teams competed for the first time ever and teams could compete on Sunday. The round ended at 8 p.m. Sunday, November 17.

Though threatened by severe winter weather across the US, Round 2 began at 9 a.m. on Friday, December 6, 2013. Teams battled it out to determine which should go to the Semifinals. Less than 100 teams reported that they could not compete due to the weather. Those teams affected by the weather competed on December 13-15.

Images used during Round 2 were more difficult than the Round 1 images. Linux was used for the first time. During the Round 2 Sunday competition window, the CyberPatriot Operations Center used only Tech Support Chat for help desk support. Chat will continue to be the primary means of Sunday help desk support. Based on trouble calls in Rounds 1 and 2, the help desk provided the following competition tips:

- -Opening an image for even a short time starts the team's competition period.
- -The readme.txt file contains multiple security policies.
- -Save the scoring report files before closing an image.
- -Take good notes in case of image failure.
- -Before competing, run the connection test.

Rounds 1 and 2 scores are published at www.uscyberpatriot.org. Semifinalists should be announced by the end of December. To sum up the two rounds, Coach David Greenwald of the Charlotte Latin School said of his team, "We had a great time competing in Round 1. Round 2 really tested their knowledge."

Commissioner's Cache

With the coming of the holidays I hope that you will take some time to rest and to be with family and friends. CyberPatriot VI is already a great season and your hard work has paid off in the high level of competitiveness we have seen. Round 2 was hard fought and the winter weather came a little early to add some excitement for Midwestern and Northern teams. In the January CyberSentinel the Semifinalist team list will be published.

Thank you for making 2013 a notable year for CyberPatriot. The program grew by almost 30%—even more than last season's exceptional growth. The only way the program grows is by our Coaches, Mentors, and Competitors acting as ambassadors for the program. Word-of-mouth is the best tool to recruit more students to our exciting program.

Oh! We have great news concerning the Semifinals. For the first time, the Middle School Division will participate with 10 teams; and, the Open Division participation has been increased to 50 teams — more than a 30% increase over the past three years.

For teams that do not qualify for the Semifinals, CyberPatriot is *NOT* over. The online State Recognition Round happens in mid-February, and all high school teams (except the National Finalist teams) get to compete. AND everyone starts fresh (previous scores do not count toward a state award)! Also, teams that might have registered this year, but for whatever reason were unable to participate in Rounds 1 or 2, you are welcome, too! Top teams from each state will be recognized, so even though your team may not have qualified as a Semifinalist, your team can still earn recognition in your state!

Bernard K. Skoch
Commissioner
CyberPatriot
Air Force Association

Sponsor Profile: Leidos

Leidos Supports AFA's CyberPatriot Program as Cyber Silver Sponsor

ARLINGTON, Va. — The Air Force Association (AFA) is pleased to announce that Leidos [NYSE:LDOS], a national security, health, and engineering solutions company, will continue as a sponsor for CyberPatriot — The National Youth Cyber Education Program.

Leidos (formerly SAIC) was a founding partner of CyberPatriot in 2009 and will continue as a Cyber Silver sponsor for the program this year.

As a Cyber Silver sponsor, Leidos provides invaluable resources, knowledge, and capability to the nation's fastest-growing youth cyber challenge. The Leidos CyberNEXS Training Platform is a competition engine with a patented scoring system that powers the CyberPatriot Regional Competition and other competitions around the world. CyberNEXS hones cyber skills and techniques in a repeatable, measurable format. The scalable training, exercise, and certification system is also used in professional and classroom settings.

"CyberPatriot is honored to work with Leidos to provide STEM education opportunities to young adults in order to create a strong and diverse cyber workforce for the future," said Bernie Skoch, CyberPatriot Commissioner. "With the support of generous corporate sponsors like Leidos, CyberPatriot is able to provide students with hands-on learning that emphasizes technology, teamwork, leadership, and critical-thinking skills. Through this program, students learn how to defend and protect computer systems from cyber threats through an engaging and dynamic curriculum."

"Leidos is committed to providing our nation's youth with education opportunities they may otherwise not be able to benefit from," said Cecily Joseph, senior director of corporate responsibility. "Leidos looks forward to working with CyberPatriot, giving middle school and high school students critical access to an engaging STEM curriculum," said Lou Von Thaer, Leidos president of the national security sector. "Through the use of our CyberNEXS technology and the support of cybersecurity experts, we are proud to work closely with the Air Force Association to raise cybersecurity awareness and career interests."

This year's competition began on November 15, with more than 1,500 teams registered across the country. For more information about CyberPatriot, visit www.uscyberpatriot.org.

How many boxes? Too many...

Thank you to the Fredericksburg Civil Air Patrol Composite Squadron (MER-VA-108) for supporting our efforts to pack over 1,400 team participant kits!

Participant kits are on the way! To find out if your team's kit has shipped, visit http://www.uscyberpatriot.org/CP5/CPVI%20Documents/Participant%20Kits%20-%20Shipping%20List.pdf

Coaches' Corner

- **CyberPatriot VI Participant Kits:** All Participant kits have shipped. Participant kits include a portfolio-style bag, t-shirt (size S through 3XL), CP-VI challenge coin, lapel pin, teal pen, USB drive, and participation certificate. Kits are shipped to Coaches for distribution to their team(s). Coaches who correctly filled out the t-shirt survey will receive the requested sizes. Coaches who did not submit a survey will receive the sizes submitted during the online registration process. Coaches who are fully registered but did not register competitors before the November 14 deadline will receive a kit with generic number of bags and t-shirts.
- **Finalizing Rosters:** All Coaches should finalize their team rosters ASAP if they wish to compete in the Semifinals or State Recognition Round. Teams without rosters of two to 10 Competitors will be ineligible to compete. To enter your roster:
  - Sign in to www.uscyberpatriot.org with your registered email address and password.
  - Go to the "My Teams" box on the right side of the homepage.
  - Click the "Team 06-XXXX" site link. (If this link does not appear, you have not been verified, been approved, or paid your team's fee.)
  - Fill out the form on the next page.
  - Coaches will need to repeat these steps if they have multiple teams.
- **Online Coaches' and Mentors' Meetings.** This month's Coaches' Meetings are a great time to ask any questions about the competition before Round 2. The first two meetings will provide round details in a slideshow with a questions afterward. The third meeting will have a shorter slide presentation and focus on questions from participants of all experience levels. Information on joining these meetings will be emailed to all registered Coaches and Mentors in the coming week. Below is the January meeting schedule.

  - Jan. 14 — 3:30 pm EDT/2:30 pm CDT/12:30 pm PDT
  - Jan. 15 — 4:30 pm EDT/3:30 pm CDT/1:30 pm PDT
  - Jan. 15 — 9:00 pm EDT/8:00 pm CDT/6:00 pm PDT

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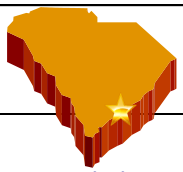
Spotlight on South Carolina

Shawn Gordon, AFA Charleston Chapter



A new era was renewed aboard the aircraft carrier USS Yorktown known as "The Fighting Lady" when tech-savvy teens once again descended below the decks to showcase their cyber skills during Round 1 of CyberPatriot VI. Cyber-warriors representing six local high schools and the first-ever middle school from Charleston battled aboard the USS Yorktown to fend off simulated cyber attacks from an unseen adversary. Three other Charleston area high schools decided to take the challenge at their own locations.

The USS Yourktown acted as the venue for Round 1 of CyberPatriot VI for several Charleston area teams.

The local AFA chapter has been able to forge a very special community partnership with the Patriots Point Naval & Maritime Museum, which oversees the USS Yorktown, as well as SCLabs, an organization that helps provide IT support aboard the ship and at various local community centers. "*We're proud to do our part to support STEM education opportunities for Charleston-area students,*" said Patriots Point Executive Director Mac Burdette. "*This innovative competition is a great way for our future leaders to gain valuable experience in a burgeoning career field*."

Through collaboration with the Patriots Point Naval & Maritime Museum and SCLabs, the chapter has been able to provide a perfect backdrop and neutral location for CyberPatriot participants, not to mention a venue that gives schools efficient and speedy connectivity to the Internet which affords teams faster access and response times crucial to doing well in this international cyber defense competition. Local AFA chapter's CyberPatriot Coordinator Shawn Gordon stated, "As sailors aboard the historic USS Yorktown had to implement their training to defend the nation, these students have to exercise their cyber defense training to hone skills that they may someday apply to an education and career in the IT/cybersecurity field. Conducting CyberPatriot aboard the unique surroundings of the USS Yorktown allows students to feel they are in pursuit of something that has a larger significance beyond winning a computer defense competition."

As the chapter's CyberPatriot coordinator, Mr. Gordon is responsible for creating awareness about CyberPatriot activities and participants, recruiting mentors and sponsors, and linking teams to local businesses, professional organizations, civic, and government groups. Support from local groups and association chapters, such as the Association of Old Crows – Palmetto Roost, IT-ology, AFCEA, and SC.GMIS, has been instrumental in helping spread awareness and making progress toward a goal of all high schools (and soon middle schools) in the chapter's area of responsibility having the opportunity to participate and acquire the mentors they need.

AFA Charleston Chapter President Linda Sturgeon commented, "It's been great watching the phenomenal growth in interest and support for CyberPatriot in the Charleston area. We are really beginning to see the success of our awareness campaign and support outreach come to fruition as our local school, business, professional, and civic organizations come together in this sixth year of the competition. It continues to be a work in progress as we foster more participation and support with our community partners."

Keith Grybowski, director of education at Patriots Point, said hosting the event is another way for local students to learn and experience what the museum has to offer. "When these high schoolers step on board the USS Yorktown, we want them to understand it's more than a historical aircraft carrier," he said. "It's a place where they can come learn and expand their knowledge of history, science, and technology. These students are our future and they have our support."

Summerville HS NJROTC arrives aboard the USS Yorktown to defend its state title.

For the group of Summerville High School NJROTC cadets, the intensity of this challenge is heightened by a desire to defend their title. The team's coach, Naval Science Instructor Master Chief Carson Burgess, said, "Saturday's event was more about the thrill than winning." He went on to say, "If you put pressure on yourself then it's not fun. We're all about having fun and learning."

For team member Corey Taylor, participating in the CyberPatriot competition meant following in the footsteps of his father, who worked in information technology for the Navy. "*I just really have a love for computers,*" Taylor said. "*You can look into it every day and you'll find more and more to challenge you.*"

The Charleston area eagerly awaits Round 2 and beyond to showcase the budding STEM talent being cultivated in the emerging SC digital corridor.

South Carolina and CyberPatriot: The Facts

- **CP-IV State Champions:**
  Open Division
  Florence Career Center—Florence
  All Service
  Summerville High School Navy JROTC—Summerville
- **Teams Per Season:**
  - CyberPatriot II: 7
  - CyberPatriot III: 21
  - CyberPatriot IV: 21
  - CyberPatriot V: 30
  - CyberPatriot VI: 34
- **CP-IV Service Award:**
  South Aiken High School—Navy JROTC, Aiken

UMBC and Northrop Grumman Launch Nation's First Cybersecurity Honors Program

Company also graduates three technology start-ups from Cyber Cync Program at UMBC

The University of Maryland and Northrop Grumman jointly announced the launch of the Advanced Cybersecurity Experience for Students (ACES), the nation's first cybersecurity honors program for undergraduates, at a special event this past September in the Stamp Student Union Atrium on the University of Maryland College Park Campus.

Highlighting the event were remarks by University of Maryland President Wallace Loh, Northrop Grumman Chairman, CEO, and President Wes Bush, and University System of Maryland Chancellor William E. ("Brit") Kirwan.

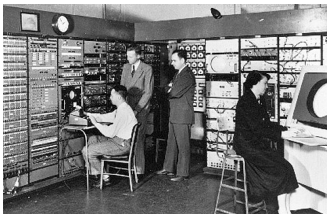
The ACES program is designed to educate future leaders in the field of cybersecurity through rigorous, hands-on learning experiences, an intensive interdisciplinary curriculum, collaborative projects, and professional insight from industry and business leaders. The four-year honors program offers students a living-learning experience, giving them the opportunity to collaborate and work closely together as they pursue their advanced program of study in cybersecurity. The inaugural ACES cohort is comprised of 57 students. The ACES program is supported by a major grant from Northrop Grumman. For more information about the program, visit aces.umd.edu.

Also in September, Northrop Grumman and University of Maryland, Baltimore County's Research Park Corporation — also known as bwtech@UMBC — hosted a ceremony for the first graduating class of the Northrop Grumman-sponsored Cyber Cync Program: AccelerEyes, Five Directions, and Oculis Labs.

The Cync Program, founded in March 2011, is an innovative partnership between Northrop Grumman and bwtech@UMBC that focuses on commercializing technology to protect the nation from a growing range of cyber threats. The Northrop Grumman Cync Program builds on bwtech@UMBC's successful business-incubation framework by offering a "scholarship program" for small businesses with the most promising cybersecurity ideas. Participants in the program draw on UMBC's research expertise and Northrop Grumman resources to develop tools that will secure and protect our nation's networks.

This Month in Cyber History

December 14, 1952—The Whirlwind computer, the first real-time parallel-processing computer with core memory, makes its television debut. Designed at MIT by Jay Forrester and a team of engineers, the computer was noted for its reliability: It had the capability to run 35 hours a week at 90 percent utility using an electrostatic tube memory (Williams Tube).



The machine was started in 1945 and completed in 1951 and took up 3,100 square feet of floor space.

For more information go to: http://www.computerhistory.org/tdih/December/14/

Join USA Today's Visions of Exploration STEM program!

USA TODAY Education and the Air Force Association are pleased to announce the *Visions of Exploration* STEM program. *Visions* provides educators with Common Core aligned resources designed to enhance student understanding of science, technology, engineering, and math, as well as aerospace education. In addition, complimentary access to USA TODAY's print or e-Edition of the newspaper is provided for your classroom for 16 weeks. Registration and participation is available at NO COST to educators.

Register today at http://usatodayeducation.com/afa/index.php/educator-sign-up-form.

CyberPatriot Is Re-Branding!

With the emergence of middle school participation in CyberPatriot, along with two HUGE bits of news that are on the way, CyberPatriot is changing its brand!
Going forward, we will no longer be "AFA's CyberPatriot—The National High School Cyber Defense Competition." Instead we will be "AFA's CyberPatriot—The National Youth Cyber Education Program."
This development is the result of great work by our supporters and participants. Thank you!

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