



The CyberSentinel

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Commissioner's Cache



June is here and so is the end of school. I hope you all have a great summer and can relax a little before the beginning of the competition rounds. Some of you will be working as Northrop Grumman interns and others will be involved in other jobs and activities. At the CyberPatriot Program Office the work to make the competition bigger and better never stops. The CyberPatriot staff is busily preparing to support more than 20 AFA CyberCamps. Our training materials are being updated and the competition design is in the final stages of development. And the Elementary School Cyber Education Initiative is on its way to being rolled out. The CyberPatriot Competition System version 4 is being readied for rollout in September when we will have our Sneak Preview.

Thanks to all those who participated in the Postseason Competition Survey. We had many good suggestions on how to improve the competition and our processes. You will see some of the suggestions in the CyberPatriot VIII Rules Book. Keep your ideas coming!

Many thanks to our Presenting Sponsor the Northrop Grumman Foundation and our other sponsors for supporting what promises to be another great season. Have a safe and wonderful summer and check out *The CyberSentinel* for news on your program!

Bernard K. Skoch
National Commissioner
CyberPatriot
Air Force Association



Program Office Bits

**CyberPatriot VIII
Registration Is OPEN!**

**Exhibition Round:
June 9-19**

**Registration Fees:
Early bird special ends June 30**

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CP-VIII Changes Coming: More Wild Cards and Saturday-Only Backup Dates

CyberPatriot VIII will see some changes—many based on your input to the Postseason Competition Survey. Below are a few of them.

First up, more Wild Card teams will advance from the State Round to the Regional Round. The number of teams has increased from 12 to 36 in the Open Division and six to 45 in the All Service Division. Wild Card teams are the teams that have the highest scores nationally, but did not place in the top three teams in their state. The change will give more teams the opportunity to win a chance to attend the National Finals Competition.

Another change to CyberPatriot VIII is Saturday-only backup dates. The change will provide more effective support for teams that require a backup round of competition. Criteria for competing on the backup dates

has not changed. Only teams that are affected by extreme weather or other large-scale emergencies may compete on the backup dates. Scheduling conflicts are still not grounds for a backup date.

We value your opinions! If you are a Coach or Mentor and are interested in joining the CyberPatriot Rules Advisory Group (CRAG) or just have an idea you want to share, please contact cpoc@uscyberpatriot.org.



It's Not Too Late to Apply for an Internship at Northrop Grumman!

Summer is quickly approaching, but it's not too late to apply for an internship! Would you like to make money doing a summer job you like? Then a Northrop Grumman internship may be for you. CyberPatriot Competitors receive priority placement for Northrop Grumman internships if they meet the following qualifications:

- Enrolled in and attending high school
- GPA of 3.0 or higher
- Computer science course work
- Must be at least 16 years of age
- Participated in the CyberPatriot Program
- Candidate must be a US citizen, DOD security clearance-eligible

NORTHROP GRUMMAN

For more information about the intern program go to:

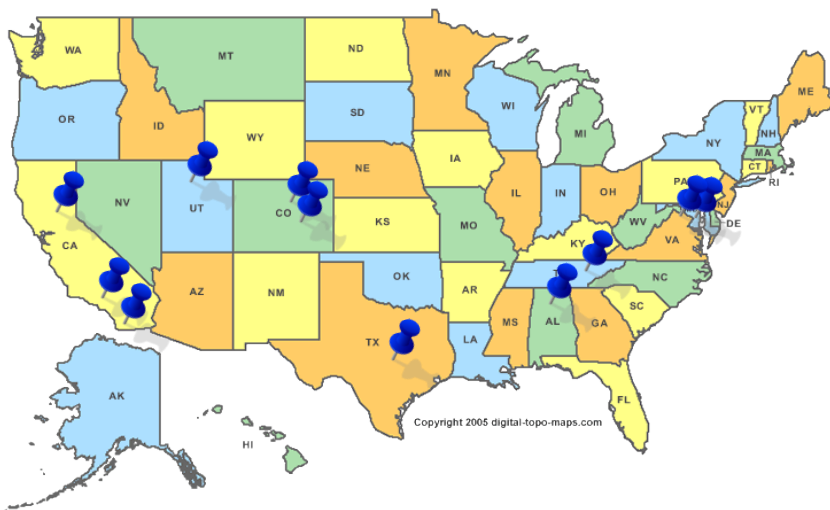
<http://www.northropgrumman.com/Careers/StudentsAndNewGrads/Pages/Cyberpatriot.aspx>

Find a list of current opportunities by entering "CyberPatriot" in the keyword field of the [job search](#) page.

Locations include: **Alabama:** Huntsville
California: Los Angeles, Redondo Beach, Sacramento, San Diego
Colorado: Aurora, Colorado Springs
Maryland: Annapolis Junction, Baltimore, Woodlawn
Tennessee: Clinton
Texas: Austin
Utah: Hill AFB
Virginia: Herndon, Falls Church, Fairfax, McLean

Questions?

Contact Northrop Grumman at CyberPatriot@ngc.com



School might be out for the summer, but recruitment efforts for CP-VIII are in full swing! Request recruitment materials, or print your own copies using the link below:

[CYBERPATRIOT MATERIAL REQUEST FORM](#)

DON'T DELAY! EARLY BIRD SPECIAL ENDING SOON!

*Register a CP-VIII team before July 1
and receive a 20% fee discount:*

Open Division: \$155
Middle School Division: \$125

Coaches' Corner

- **Online Coaches and Mentors Meetings.** The Coaches Meetings are a great time to ask any questions about CP-VIII! The format has changed to an interactive chat session until later in the season. Information on joining these meetings will be emailed to coaches a week before the meeting. Additional questions can be directed to info@uscyberpatriot.org.

Next Meeting: June 9, 9 a.m. - 5 p.m. ET

- **Exhibition Rounds.** Exhibition Rounds will be held for 10 days each month from April to August. The purpose of the Exhibition Rounds is for Coaches to recruit team members and orient potential CyberPatriot supporters. Only registered Coaches may participate in the Exhibition Rounds. Competitors do not have to be registered. Coaches must control the images as they would in Competition Rounds.

- June Exhibition Round: June 9-19

- July Exhibition Round: July 14-24

- **CyberPatriot Rules Advisory Group (CRAG).** Coaches and Mentors interested in reviewing the CyberPatriot Rules Book and providing input on rules and processes may volunteer for the CRAG at: cpoc@uscyberpatriot.org.

The CyberSentinel

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Cyber Threats are EVERYWHERE

CyberPatriots, the corporate world needs you to help stop the madness!

Companies are struggling to fend off cyber attacks as hackers get faster, sneakier and more creative. But companies are also struggling because they aren't being proactive about cybersecurity.

More than 317 million new pieces of malware were created last year. That means nearly one million new threats were released each

day. Regardless of the new threats, hackers actually relied on incredibly old computer bugs that companies just haven't gotten around to fixing yet, according to Verizon's 2015 Data Breach Investigations Report.

In nearly 90% of cases, hackers relied on computer bugs that have been around since 2002. The third most popular option for hackers is a glitch in the way an IT manager remotely manages corporate PCs, a vulnerability that has

existed since 1999.

And while old bugs are still useful to hackers, there are plenty of new hacking avenues being used. Coffee apps, entertainment systems and automobile features are just a few of examples of everyday items that are being breached.

See below for additional details on the wild world of cyber threats.

Source: <http://money.cnn.com/>



Hackers have found a way to break into a victim's Starbucks account online, add a new gift card, transfer funds, and repeat the process every time the original card reloads, thus stealing hundreds of dollars.

One victim says that after paying with his phone app, he received a barrage of alerts. PayPal repeatedly notified him that his Starbucks card was being automatically reloaded with \$50. Then came the email from Starbucks notifying him that his "gift" just made someone's day. Within five minutes he got 10 more emails just like it. Starbucks didn't stop the transactions or ask for approval. When the man told Starbucks his account was hijacked, Starbucks promised to conduct a review. When he asked to have his money refunded, Starbucks told him to dispute the charges with PayPal.

It took the man two weeks to get back his \$550. He said the incident made him realize Starbucks doesn't seek enough approval from customers before directly accessing their bank accounts. Source: <http://money.cnn.com>

Chris Roberts, a cybersecurity consultant, was detained by the FBI after officials saw his Twitter posts claiming to have hacked into his United Airlines flight. According to federal court documents, Roberts told the FBI that he hacked into computer systems aboard airliners up to 20 times and managed to control an aircraft engine during a flight.

He gained access through the in-flight entertainment systems aboard the aircraft. He claimed to have done so 15 to 20 times from 2011 to 2014. According to another tweet posted by Roberts, his only interest over the last five years has been to "improve aircraft security."

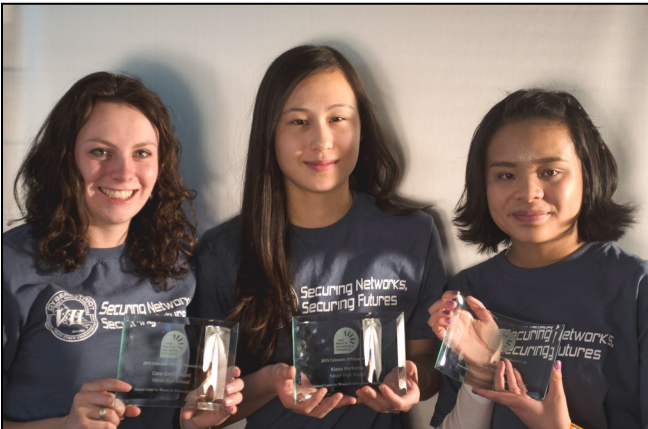
John Craig, Boeing's chief engineer of cabin and network systems, has urged airlines to be vigilant of cybersecurity threats, stating, "You may fix something but it may not stay fixed. It's like flying through the mountains, but the mountains are moving." Source: <http://www.cnn.com>



Cars might be smarter, but that doesn't make them safer.

As vehicles become more connected to the Internet, automakers are failing to take the necessary measures to protect them against cyberattacks. Sensors, radars, cameras, and lasers make driving easier, but also give hackers another thing to break in to. Earlier this year a security hole in BMW's system allowed security researchers to spoof a cellphone station and send fake text messages to a SIM card in the car's telematics system. From there, the researchers could control the locks in the car.

Unlocking doors is only the beginning. With the testing of self-driving cars, it's not far-fetched to think that people could senselessly take over the controls of a car from the comfort of a computer desk. Automakers will need to be aware of their vehicles' security vulnerabilities, as a breach may be a matter of life or death. Source: <http://www.cnn.com>



Falcon High School, in Peyton, Colo., had three recipients of the prestigious NCWIT Aspirations in Computing Awards. The three CyberPatriot members, Cora Gottbehuett, Chloe Liwanag, and Kiana Harkema, picked up their awards on April 26 at the University of Colorado Boulder.

All three members have been participating in CyberPatriot competition for at least two years. Cora, a senior, is on her way to college to major in Business, while Chloe, 11th grade, and Kiana, 10th grade, will continue participating in CyberPatriot and learning new skills along the way. Last year Falcon High School had 10 female competitors and for the first time fielded an all-female team that competed at the top level.

The students will use their award to help promote the benefits of CyberPatriot and try to recruit many other females interested in the field of Cyber Security.



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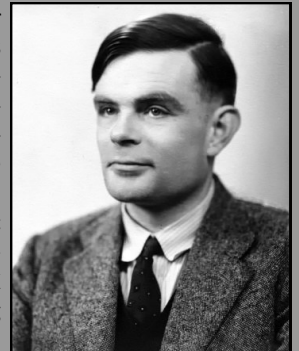
3
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BUTAD EM

The boxes above may look like they are filled with nonsense, but with a little bit of creativity, you'll find that each box has its own meaning. Use your decryption skills to crack the code and solve the secret messages!

Answer Key: (1) DON'T GET HOOKED BY PHISH-ERS (2) CP8 (3) LIVING THE BLUE TEAM DREAM

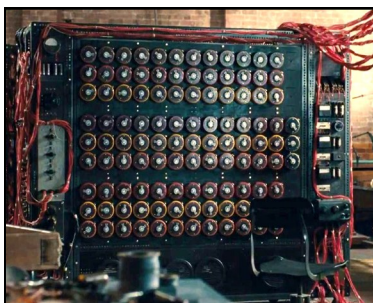
This Month in Cyber History

June 23, 1912 — Computer Pioneer Alan Turing was born on June 23, 1912. Turing, a British mathematician, logician, and cryptanalyst, played key roles in the conception and theoretical underpinnings of electronic computers. As a codebreaker at Bletchley Park in the UK during World War II, Turing led the team that cracked the "unbreakable" Enigma code used by the German high command for battlefield communications. This has led some observers to speculate that Turing's work alone shortened the war by two years, savings many lives. Turing is best known today for his work on the idea of a "universal computer," one that could run any program. This has since become known as a "Turing Machine."



For more information, visit:

www.computerhistory.org/tdih/May/22/



Left: Representation of the machine used to crack the Enigma code (from the motion picture film "The Imitation Game").



Right: An Enigma machine, used for enciphering / deciphering messages.

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