



ISSUE 80 | JAN 2019

THE CYBERSENTINEL

The official newsletter of CyberPatriot—AFA's National Youth Cyber Education Program

COMMISSIONER'S CACHE



CyberPatriot depends on many people and organizations. Our outstanding and caring volunteer coaches and mentors; administrators; our terrific competitors; AFA volunteers and AFA's Aerospace Education Council; enlightened AFA senior leadership, governance, and staff; and a wonderful CP Program Office staff all contribute to the tremendous growth and success we are enjoying.

Through it all, we are critically dependent on a group of generous benefactors led by Northrop Grumman Foundation. And (great news) as you can read in this month's edition, we are pleased to profile this month our newest sponsors USAA Foundation and Bank of New York Mellon. Please join us in welcoming them!

Also, please read about our newest program element, *CyberGenerations*, as we describe our work to protect senior citizens against online exploitation. And you know those cool CyberPatriot t-shirts and pins our competitors receive? Well, take a cool behind-the-scenes look at some of what goes into them. And I know she will humbly cringe when she reads it, please know our Rebecca Dalton leads that enormous effort, and she does it (as she does so many things) brilliantly.

Now, let's get on with the State Round of competition. Good luck!

Bernard K. Skoch

Bernard K. Skoch | National Commissioner



DATES TO KNOW

JAN. 2	AFA Reopens
JAN. 11-13	CP-XI State Round
JAN. 21	AFA CLOSED
FEB. 1-3	CP-XI Semifinal Round

HAPPY NEW YEAR!

Will your 2019 be epic, average, or bust?



Check out next month's issue for ideas to get you on track for an epic 2019 (signs point to summer internships)...

TEAMS READYING FOR STATE ROUND; NEW PENALTY CONTROL IN CCS

The stakes were high for teams competing in Round 2 during Dec. 7-9. According to the competition staff, the round was designed to be much more difficult than Round 1 so that high school teams could be assigned to tiers that closely matched their skill sets. Middle School teams did not compete for tier placement, but their scores will count when Semifinalists are selected after the State Round.

Round 2 ended with the highest scoring 30% of high school teams assigned to the Platinum Tier, the next 40% assigned to the Gold Tier, and the remaining teams assigned to the Silver Tier. Teams will compete in their tiers in the State Round during Jan. 11-13.

All teams may compete in the State Round regardless of their previous scores or if they

participated in past rounds. Awards will be given by state and tier. Middle School teams will compete for state awards.

Semifinalists — Approximately 25% of high school teams and 50% of Middle School teams participating in the State Round will advance to the Semifinals.

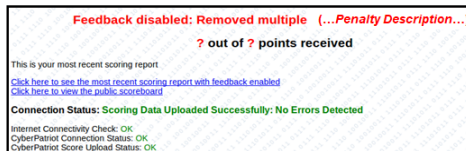
New Penalty Control — Disabled Scoring

Data analysis has shown that scores drop significantly because teams receive penalties for repeating similar incorrect actions in an image. The new penalty control capability will allow the teams to regroup and gain back the points from their penalties.

The CyberPatriot Competition System (CCS) software has been updated to temporarily disable scoring on the Scoring Report in an

image until the penalties are fixed. For example, the scoring report may read, "Feedback disabled: Removed multiple (...Penalty Description...)." When the penalties are fixed, the scoring will start again. It is important that teams take good notes of their actions so they may undo their penalties.

More details will be available the State Round Download Instructions.



During the State Round, teams with multiple penalties for the same action in an image will receive the above warning in red text on the image scoring report. When the teams have fixed the penalties, scoring will be enabled.

STAY IN THE KNOW —TOP MEDIA SOURCES IN CYBERSECURITY



The Hacker News

In 2010, THN was started to educate people on how to use the Internet in the safest way. In following years, the website turned into one of the most significant information security channels.

Today, the Hacker News (THN) is a leading, trusted, widely-acknowledged dedicated cybersecurity news platform, attracting over 8 million monthly readers including IT professionals, researchers, hackers, technologists, and enthusiasts. It features latest cyber security news and in-depth coverage of current as well as future trends in Infosec and how they are shaping the cyber world.

<https://thehackernews.com/>



Zero Day

ZDnet is a one stop shop for IT professionals around the world. There's a dedicated security section that vows to keep readers up-to-date on the latest vulnerabilities through a seemingly never-ending feed of articles, videos, photos, and reviews. If your interests stretch beyond security, you'll also find articles about hardware, storage, AI, open source, and more.

In order to provide its readers with the most relevant news, ZDnet also curates a host of regional newsletters, both daily and weekly. There are also newsletters dedicated to specific topics, including security. Subscribe [here](#).

<https://www.zdnet.com/>



IT Security Guru

IT Security Guru as a source is a [daily news digest](#). You won't find breaking news or reviews, but you will find a collection of the top stories in network security, cloud security, threat detection, data protection, mobile security, and hacking news.

On the website, you'll also find a comprehensive list of blogs to read from third-party sources covering a range of topics as well as an events calendar covering upcoming cyber security events around the world.

The IT Security Guru eats, sleeps and breathes IT security, making IT security digestible and interesting.

<https://www.itsecurityguru.org/>

USAA FOUNDATION JOINS CP



THE USAA FOUNDATION

The CyberPatriot Program Office is excited to have the support of the USAA Foundation, a new addition to the program's Cyber Gold Sponsors.

USAA believes that being a good corporate citizen is more than bringing jobs to the communities it serves—it's about making communities better places to live. The USAA Foundation invests in programs that help students learn to make informed financial decisions early in life and generate interest and proficiency in science, technology, engineering and math (STEM). Specific reasons for investments:

- Occupations requiring STEM skills are projected to grow to more than 9 million by 2022.
- Students with STEM proficiency help enhance U.S. competitiveness.
- Investments in financial literacy and STEM education yield long-term benefits to local communities as well as to individual students.



The CyberGenerations Senior Citizens' Cyber Safety kit includes:

- Digital flyers that can be shared for generating interest and recruiting participants
- Workshop curriculum
- Self-Paced Guide for the participants with additional material for each module
- Instructor Guide containing module information and curriculum notes
- Printable activities and answer keys specifically designed for each session

<http://uscyberpatriot.org/cybergenerations/cybergenerations-overview>

SPOTLIGHT: PARTICIPANT KITS — BEHIND THE SCENES!

Every competition season, teams around the world wait anxiously for their participant kits to arrive. But have you ever wondered what goes into the process of making sure each package is correctly filled and delivered to the appropriate team?

It takes HUNDREDS of staff-hours to complete the process, and believe it or not, the planning begins as early as June!

JUNE

COINS
+ PINS



JUNE: With a quantity of 30,000 coins, it takes nearly three months for production to be completed. The CyberPatriot staff votes on a secret code, the proof is finalized, and the order is placed. Lapel pins are also ordered at this time.

TEES



SEPTEMBER: Several designs are voted on by CyberPatriot staff. The winning design is sent to the vendor for finalization. It takes two months for 30,000 shirts to be produced, so we estimate size quantities based on a sample pull of registrants.

PREP



OCTOBER: Reservation of the boardroom and **A LOT of mental preparation...** Checking status of all items in production, confirming delivery dates, etc.

ORDER
DATA



MID-NOVEMBER: Excel pivot tables are used to sort tens of thousands of participant records into orders. Orders are tied to individual coaches, and exported into a master order sheet. The order data is then transferred to labels.

BOXES



MID-NOVEMBER: Boxes are ordered in specific sizes based on order data/quantities. Flat boxes are each labeled with the order label which is used by packers to indicate the items each coach should receive. Packing tape (roughly 75 lbs) is also ordered.

PRE-
PACK

MID-NOVEMBER: With the help of all AFA staff, coins and lapel pins are pre-counted to help expedite the packing process. Final preparation takes place to expedite the packing process.

PACK



LATE NOVEMBER/EARLY DECEMBER: Four temporary employees are hired for one week to pack the orders. Boxes are assembled, t-shirts, and coins/pins are added, boxes are closed and shipping label is added. Pick-ups are coordinated with Fed-Ex.

HAPPY
TEAMS!



DECEMBER

CYBERTITAN: PAST AND PRESENT

Recognizing the importance of equipping tomorrow's leaders and innovators with critical digital and cyber skills at a time when the Internet of Things permeates their everyday lives, we, at ICTC, introduced CyberTitan. In May of last year CyberTitan held the first annual Canadian national championships. This would not have been possible without a phenomenal group of dedicated cyber security leaders working together with us at the helm to realize this vision. Thank you to ICTC's National Cyber Security Leadership Council on Youth and Education, with a special thank you to Sisler High School, in Winnipeg, Manitoba for helping us kick-start CyberTitan in Canada.

During the 2018 competition, we saw 450 Canadian cyber ninjas competing (90 teams) over the four gruelling months to secure one of 10 top spots at the National Finals in New Brunswick (a strong CyberTitan community). We're thrilled to have seen that number grow for the 2018-19 school season, and are excited to see which teams will represent their schools at the 2nd Annual CyberTitan National Competition Finals this coming May, in Ottawa, Ontario.

Picking CyberTitan Final Teams

As this season's CyberPatriot competition unfolds we've had a few of our new CyberTitan family schools reach out to us to inquire how we select the top 10 teams to participate in the 2019 Canadian Finals so we would like to explain our process.

We follow CyberPatriot's scoring until the semifinals round. Once those results are available we take the top four teams from Western Canada (BC, AB, SK, MB, YT, NT and NU), the top four teams from Eastern Canada (ON, QC, PE, NL, NS and NB), the top Middle School team and one national Wildcard team. Please note that only two teams per school will advance to the Finals, regardless of the CyberPatriot scores/rankings. If we have more than two teams in the top 4 we will move onto the next school. We are excited to see this year's results!



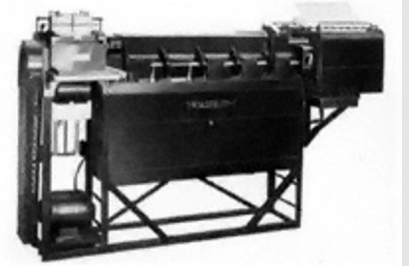
If you have any questions please reach out to us at:
cybertitan@ictc-ctic.ca.

THIS MONTH IN CYBER HISTORY

January 8, 1889 — In January of 1889, Herman Hollerith Received a Patent for the Hollerith Tabulating Machine

The Hollerith Tabulating Machine was a punch card system that won a contest for a more efficient means of compiling the 1890 US census. To count an item, a small paper card on which a census taker had punched out holes corresponding to a citizen's census information, was fed through a press that sensed holes. A wire passing through the holes into a cup of mercury closed an electrical circuit and registered the item. In 1924, Hollerith's Tabulating Machine Co., and two other firms were consolidated into International Business Machines.

For more information, visit:
<http://www.computerhistory.org>



BNY MELLON JOINS CP AS GOLD SPONSOR

Welcome, BNY Mellon! This month BNY Mellon joined CyberPatriot as a Cyber Gold Sponsor.

"We are delighted to welcome BNY Mellon to a wonderful select group from industry and government working with AFA to promote cybersecurity and STEM education in America and beyond," said Bernie Skoch, CyberPatriot National Commissioner. "BNY Mellon knows technology, and they know cybersecurity."

Founded by Alexander Hamilton in 1784, BNY Mellon is an investments company that provides investment management, investment services and wealth management that help institutions and individuals succeed in markets all over the world. The company has a commitment to true

innovative spirit, and it's the driving force behind the company's legacy of firsts, and what continues to push it into the future.



BNY MELLON

Presented by:

NORTHROP GRUMMAN
Foundation

Cyber Diamond



Cyber Gold



Cyber Silver

