



ISSUE
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THE CYBERSENTINEL

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

COMMISSIONER'S CACHE



There are dozens of deeply gratifying aspects to being involved with CyberPatriot. One of them is watching interest in the program grow in areas around the nation and the world. In 2010 we introduced the concept of CyberPatriot Centers of Excellence with the recognition of Los Angeles Unified School District as our first COE. Since then, a total of 15 (!!) COEs have been designated, acknowledging exceptional efforts in growing and sustaining the National Youth Cyber Education Program. As you can read here, after an extremely close competition, we honor in this issue our COE of the Year, Fort Gordon Cyber District/Alliance for Cyber Education. The work they are doing is amazing!

Read also about the Coach and Mentor of the Year, Thomas Johnson and Paul Johnson. We are also thrilled to announce VMware has increased their program support from a Cyber Partner to a full Cyber Silver Sponsor! We welcome them, as they join the Northrop Grumman Foundation as the principal benefactors of the largest cyber education program in the world.

Thank you!

Bernard K. Skoch | National Commissioner



DATES TO KNOW

AUG. 16	End of Exhibition Round 2
SEPT. 5	Start of CP-XII Training Round
OCT. 2	Last day for CP-XII Registration
OCT. 3	Start of CP-XII Practice Round



SIGN UP BEFORE OCT. 2, 2019

See page 2 for additional information.

FORT GORDON CYBER DISTRICT NAMED CENTER OF EXCELLENCE OF THE YEAR



Congratulations to the Fort Gordon Cyber District/Alliance for Cyber Education for being recognized as this year's Center of Excellence of the Year! The Center of Excellence (COE) designation is awarded to institutions or municipalities that excel in emphasizing cybersecurity and developing the workforce of tomorrow through engagement with CyberPatriot. While

CyberPatriot is blessed to have such outstanding Centers of Excellence, Fort Gordon Cyber District Alliance for Cyber Education stood out among others and we are proud to be able to give them the COE of the Year award!

Fort Gordon excelled in all aspects of the award criteria. To highlight a few of their accomplishments, they increased their CyberPatriot registration from 8 registered teams in 2016 to 100 teams in 2018, distributed ESCEI information to education committee representatives across a two-state, seven-county region, and conducted the first CyberCamp in their area. They also provided training sessions for teachers and mentors, established National Integrated Cyber Education Research Center initiatives and education sub-committees in seven school districts and three private schools, and last but not least ,

developed a system of recognition for CyberPatriot participants in the region.

The accomplishments listed are only a small glimpse at all the things Fort Gordon Cyber District/Alliance for Cyber Education has done for their students, community, and ultimately, country. We want to thank them for their efforts and congratulate them again on their well-deserved CyberPatriot Center of Excellence of the Year award!



Fort Gordon administrators and educators gathered to promote CyberPatriot and cybersecurity.

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Last month, Troy High School hosted a four hour elementary school camp using the ECSEI materials. The students, ranging from grades 1-5, were each awarded with a copy of *Sarah the Cyber Hero* and a CyberPatriot certificate at the end of the camp. Photo provided by Allen Stubblefield, Troy High School



CyberPatriot is proud to see when our competitors are able to take some of the skills they've learned from our programs and use them to do good in the community! Pictured to the above is Clement Chan, a senior at Troy High School in California, presenting CyberGenerations material to a group of senior citizens in his locality. Clement has been involved with CyberPatriot for the past three years, competing in the last three National Finals Competitions. Clement was also a part of the Troy High School team that won the CP-XI National Championship for the high school Open Division.

CyberGenerations, CyberPatriot's newest program—is a guide to cyber safety designed to keep senior citizens protected from cyber attacks and other online scams. The program is currently undergoing updates based on feedback from the first round of pilot workshops, but will be available again in mid-September.

Photo provided by Allen Stubblefield, Troy High School, Fullerton, CA.

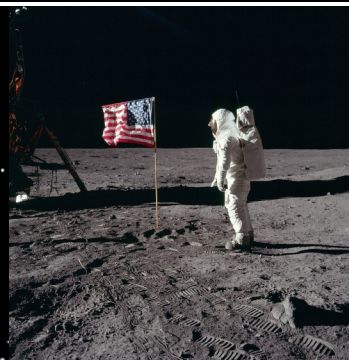


FEATURED CAMP: St. Mary's Composite Squadron (California, MD) Pictured above are the attendees of the standard AFA CyberCamp hosted by St. Mary's Composite Squadron. The camp was conducted at the Captain Walter Francis Duke Terminal Building in late June. An advanced camp was also held during the beginning of this month. Facilitated by Lt Col Glenn Rioux, the camp focused on both cybersecurity and physical fitness (as a way to break up the classroom portion of the camp). Each CyberCamp culminated in a mock CyberPatriot competition and wrapped up with a cookout and graduation ceremony.

Did you know July 20th marked the 50 year anniversary of the Apollo 11 landing on the moon?

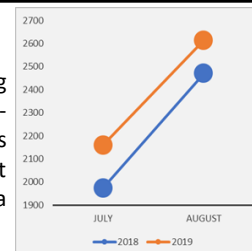
...and how does that relate to cyber? Well many do not know this, but the Apollo mission was close to being aborted during the spacecraft's descent towards the surface of the Moon. As the Apollo began its descent, audible alarms went off in the spacecraft and at the control center. Luckily for the mission, NASA made sure to hire computer experts from IBM to work as part of the team. These computer experts had run through hundreds of simulations and had written down many possible errors that could occur. After only 15 seconds the computer experts determined the alarm was due to computer overload and that it wasn't necessary to abort the mission. Good thing we had people who knew their ways around computers, otherwise the Moon landing may have never happened!

Source: <https://fortune.com/2019/07/20/apollo-11-anniversary-moon-landing-ibm/>



DON'T FORGET TO REGISTER FOR CYBERPATRIOT XII!

OCTOBER 2, 2019 is the final day to register a team for CyberPatriot XII. Returning coaches can use their existing volunteer accounts to re-register their teams for the upcoming season. New coaches must first create a volunteer account before being able to create a team. Remember, the October 2 deadline is for team registration only. Competitors do not need to be added to rosters until October 31. Coaches who plan on having more than one team must submit individual registrations for each team. If you aren't sure how many teams you will have, it is better to register extra than not enough. We can easily remove a team after the deadline, but we cannot add a team.





SPOTLIGHT: CYBERPATRIOT XI COACH AND MENTOR OF THE YEAR AWARDEES



Thomas Johnson | Coach of the Year Cheyenne Central High School

Congratulations to Lt. Colonel Thomas Johnson of Cheyenne Central High School (Cheyenne, WY), for being selected as the CyberPatriot XI Coach of the Year!

LTC Johnson serves as the school's JROTC instructor after a 31-year active duty military career. He has coached CyberPatriot teams for the past two years, and in that time has also hosted two CyberCamps and doubled the size of their CyberPatriot program.

Students point to LTC Johnson's teaching style as a major factor in the team's success. LTC Johnson brings in mentors from top-notch technology companies to deliver outside industry experience to his students from those who know cyber best. He goes above and beyond by scheduling outside practices for students on a regular basis and hosts his own weekend competitions and camps. LTC Johnson also incorporates the local National Guard in practices to give the students real world examples of cyber threats and to create a even more lively educational experience.



Left: LTC Johnson and his CyberPatriot team. Right: LTC Johnson with his mentor (and son) Jim Johnson.

LTC Johnson takes initiative outside of teaching to enhance the experience for his students. He has created a "career pathways" program where local businesses, IT professionals, Air Force cyber operators, and National Guard recruiters help students make informed career decisions. He also hosted and paid for a camp on behalf of three high schools from three different states.

As if he doesn't work hard enough being a coach, he still finds time to coordinate with local media to show the community the good his students are doing. He even made the news twice in a week... Well done, LTC Johnson!

Paul Johnson | Mentor of the Year Del Norte High School/Oak Valley Middle School

Congratulations to Paul Johnson for being selected as the CyberPatriot XI Mentor of the Year!

Mr. Johnson has been praised as the "backbone" of the San Diego area program by his students. He has been involved with CyberPatriot for the past four years, holding both coach and mentor positions. Just this year alone he had six teams qualify for the National Finals competition. In CP-XI, Mr. Johnson's teams swept the Middle School Division, and he also had a high school team place third in the Open Division.

Mr. Johnson has over 20 years of experience working at Northrop Grumman and imparts the skills he has gained from his technical experiences on his highly successful students. He has dedicated countless hours to his local CyberPatriot program— which has taken on the name CyberAegis. During his time with the program, he's mentored hundreds of students, and continues to find new ways to keep the participants engaged. One notable initiative is his "CyberAegis Ca\$h" system in which students earn "cash" by contributing to the team, which encourages team participation and boosts motivation. The cash can be redeemed for various prizes.

Outside of practices, Mr. Johnson keeps his students engaged by sending various cybersecurity news articles, enabling them to stay informed of the ever-changing world of cyber threats. He has created flyers for CyberPatriot and handed them out to 100 students and posted them at three different high schools. Last but not least, Mr. Johnson has consistently provided his students with educational opportunities, bringing in guest speakers from STEM career fields to give his students an outside perspective on cybersecurity issues.

Congratulations, Paul, on this well-deserved recognition!



Left: Paul Johnson leading a team practice. Right: Commissioner Skoch recognizing Paul Johnson's outstanding achievements at National Finals.

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YOUR VIDEO GAMES CAN POSE A CYBERSECURITY THREAT BY ETHAN GRAEBNER, CYBERPATRIOT INTERN

Did you know that video games are becoming a greater risk for various forms of cybersecurity threats? This is especially true for games that involve online purchases and micro-transactions. As credit cards and payment information becomes more exposed due to games involving more online transactions, hackers are increasingly attracted to targeting gamers.

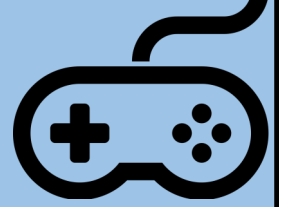
The first threat you can expect to face through gaming networks are traditional viruses and forms of malware. Hackers can get gamers to click on links or download programs that allow them to steal data. PC gamers are especially susceptible to these forms of attacks since it is popular to download programs that enhance the gaming experience. Be very careful when downloading a program and make sure the program is the program you want and not a fake before you download.

Another common threat is phishing. Phishing is when a hacker poses as a legitimate source to get a user to click on a link that allows the hacker to steal data. A recent example of this was tied to Fortnite, where hackers sent links to gamers posing as Epic Games. Gamers clicked these links, allowing hackers to steal data from the user's console.

Brute force attacks are also something to be aware of. A recent example of this was from hackers who had stolen credit card information and opened up accounts on Fortnite. They then used those credit cards to buy items in the game and sell them on the black market. Keep your information safe and secure and do not give personal information to anyone who is suspicious.

Remember: Do not click on links if you do not trust the sender. If you see an email from "Epic Games" make sure to look at the email address and verify that the address is legitimate. Do not fall victim to things that seem too good to be true, for example do not click on something saying "you will get a 30% discount on V-bucks if you click this link"...game developers would never do that.

Source: <https://www.natlawreview.com/article/raiding-your-vault-cybersecurity-gaming-podcast>



If you could have a computer put into your brain would you do it?
Well in the future we might all be able to...

Elon Musk, CEO of Tesla and SpaceX, recently announced that his company, Neuralink, has finished designing its first product — a small micro-chip that is designed to be placed in living brains. This chip is designed to pick up neurological signals that flow in the brain and hopefully translate those signals into a readable computer code. This is a bold new invention and is nowhere near being fully developed or understood, but in the distant future technologies like these could be used to better understand the brain or cure neurological diseases. It may even enhance human beings and turn us into super-human cyborgs... only time will tell.



Source: <https://www.wired.com/story/heres-how-elon-musk-plans-to-stitch-a-computer-into-your-brain/>

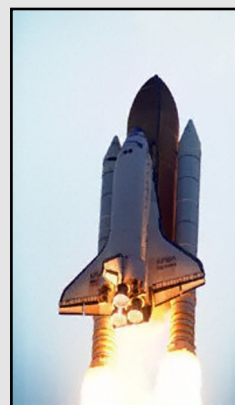


"You should check your e-mails more often. I fired you over three weeks ago."



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THIS MONTH IN CYBER HISTORY



August 4, 1988 — Cyber and Space:

A computer was used to shut down the engines of the space shuttle Discovery. As a result of the aftermath of the tragic Challenger incident NASA implemented strict testing standards for their spacecraft. During a test of the Discovery's engines, the computer module detected a valve not closing fast enough and as a result did not allow the Discovery's engines to start, preventing what could have possibly been a tragic disaster.

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

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