



THE HONDO CYBER OWLS: TAKING FIGHT

In August 2018, the Hondo Cyber Owls CyberPatriot team was created to establish a competitive cybersecurity team. This year, the Cyber Owls were able to compete in the Gold Tier of the Open Division which makes up the middle 40% of this division. Unfortunately, our team did not qualify to participate in the semifinals, which means we will not compete in January. However, I am proud of how our team performed. Not many first-year teams qualify to compete in the Gold Tier. Out of the 1,051 teams that were competing in the Gold Tier of the State Round, our team missed qualifying for the semifinals by only 30.59 points. This is an incredible feat for our team to have accomplished in our first year. With continued practice and experience, the Cyber Owls will become a formidable cyber competition team.

What Events Have the Cyber Owls Attended?

The Cyber Owls have been invited to attend professional cybersecurity events, and have been provided additional training opportunities, in addition to our weekly practices. In October, our team members were invited to attend the Texas Cyber Summit which is a conference loaded with world-renowned keynote speakers and highly technical briefings focused on cyber security. The organizers gave our team a private tour of the conference. This tour allowed team members to speak with cybersecurity professionals from all areas of the industry. They were also allowed to perform some hands-on keyboard activities such as an interactive Smart House and learn how security is implemented on these devices.

Our team members were also invited to attend advanced training hosted by the CyberTexas Foundation at the University of Texas at San Antonio and the New Horizons Computer Learning Centers. This training helped our team members learn advanced system techniques and how to use systems tools to root out computer viruses and malware that are part of the CyberPatriot competition.

What is next for the Hondo Cyber Owls?

This is the time of the year when we dive deeper into the various aspects of Windows, Linux, and Cisco. We will also edit and refine our competition checklists. Members are now allowed to switch roles within the team. We will also begin recruiting new team members. If you know anyone that is currently in the 8th - 11th grades, that is interested in cybersecurity, please invite them to attend practice.

I would like to thank everyone that has helped make this team a success. Mrs. Melisa Joyner, Cybersecurity Professional, Technical Mentor, Mr. Edward Cardenas, Computer Services Technician/Library Aide, and Chad Kailipaka, Hondo High School's Information Technology and Cybersecurity teacher. Without the help of these three incredible people, we would not have a competitive cyber team.

Finally, I want to give a special thanks to Mrs. Debbie Krueger, Community Projects and Programs Coordinator, Hondo Public Library. Without her assistance, the Hondo Cyber Owls team would have not come to fruition.

-Head Coach Frank Hall



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THE HONDO PUBLIC LIBRARY **CYBER EDUCATION CENTER FOR MEDINA COUNTY**

The CyberPatriot program is a national cyber defense program that was created by the Air Force Association a little more than a decade ago in the hopes of motivating school-aged youth to learn about cyber defense. The ultimate goal as stated on the CyberPatriot webpage, “To inspire K-12 students toward careers in cybersecurity or other science, technology, engineering, and mathematics (STEM) disciplines critical to our nation's future.” The National Commissioner, Bernard K. Skoch, noticed that there was a lack of cyber professionals in our military and federal government and decided to start the CyberPatriot program. The National Youth Cyber Defense Competition is at the center of CyberPatriots. The competition has over one thousand registered teams worldwide. This includes DoD schools that are overseas and in the territories of the United States. In the San Antonio area there are over three hundred sixty teams that are registered to compete. There is a total of six rounds of competition culminating in the national finals which are held in Baltimore, Maryland, where the students from each of the top twelve qualifying teams have an all-expense paid trip to the four-day event and a chance to win the national title. The top teams here in the San Antonio area receive scholarships from universities and technical schools. Most also qualify for internships at information technology companies and government agencies here in San Antonio.

A common misconception is that the students are learning how to hack computers and critical network infrastructure. However, this is not the case. Each student is learning appropriate cyber defense skills which are important for stopping attacks and correcting misconfigured workstations and servers while in a safe virtual environment. Every student will learn how a computer or “cyber” attack works and the techniques used to compromise a system or network. We emphasize the importance of never trying this outside of an instructor led virtual environment. The whole team is taught Cyber Ethics, and the consequences of breaking the law for illegally obtaining, or gaining access to, a person's or organization's information technology enterprise.

My priority is to prepare the students for promising careers in the cyber defense industry, taking their first industry certification, or preparing them for college to major in cybersecurity. When asked why they wanted to join CyberPatriots, they often say they wanted to learn more about computers, programming, and networking because they have a family member or know someone that does this type of work for a career. They see how successful they can become in an area where our country is lacking in expertise to protect our critical infrastructure, or to protect a company's data which could be worth billions of dollars. This program is integral to giving them the solid foundation in information technology to pursue an education and career in this field. San Antonio has the second highest employment rate for cybersecurity in the nation behind Washington D.C., and it is continually growing and becoming recognized as a cybersecurity city.

CYBERTEXAS ADVANCED CYBERPATRIOT CLINIC

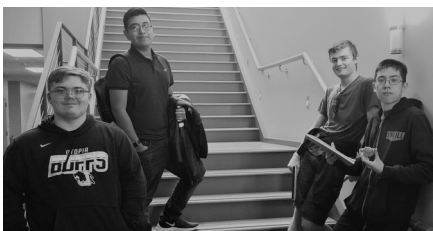
On November 2, 2019, David Counselman Jr. attended the first advanced CyberPatriot training clinic hosted by the CyberTexas Foundation. The purpose of this clinic was to teach teams the following skills:

- How to use system administration tools and techniques for threat detection in Linux and Windows images.
- Scripting by using PowerShell in Microsoft Windows
- Using Bash scripting in Ubuntu Linux

Using two prepared virtual machines similar to the those in CyberPatriot competitions, they then put their knowledge to use by securing these systems.

This clinic gave David Counselman Jr. an opportunity to meet, work with, and socialize with CyberPatriot teams from around San Antonio. He was then able to come to practice and give a team presentation on the tips and techniques that he learned at the clinic. Our team has used this knowledge during our competitions this season.

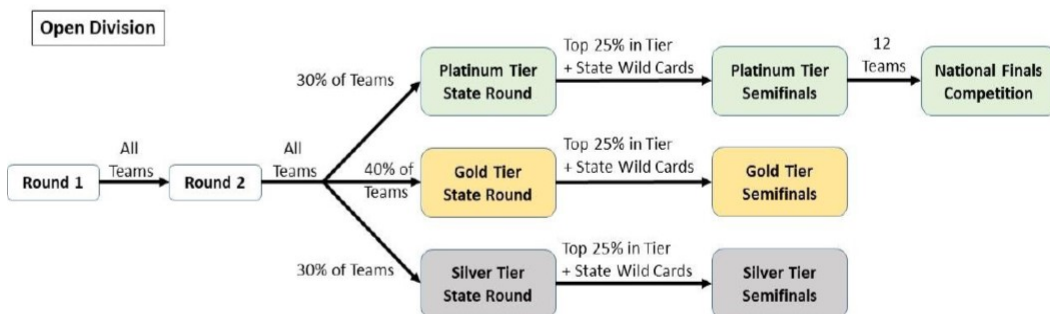
Well done David!



David Counselman Jr (Left Front) is pictured with members of the Medina Valley AFJROTC and Warren TX-20022d AFJROTC CyberPatriot Teams.

COMPETITION STRUCTURE AND ADVANCEMENT

The Hondo Cyber Owls are in the Open Division of CyberPatriot. This means that our team competes against all other students that are regularly enrolled high school students not in an JROTC program. Hondo's team competes against approximately 3,400 teams across the country and overseas. Each round of competition is scored for tier placement or tier rankings. Rounds one and two are used to structure the teams into three tiers (Platinum, Gold, or Silver). Prior to the State Round, each team's score is reset to zero; meaning the scores from rounds one and two do not count in the State Round or Semifinal Round. In order to be ranked in tiers and advance, each team must score in a certain percentage range. Our team was in the Gold Tier. In order for us to have advanced to semifinals, we needed to have been in the top 25% of our tier. See the infographic below.



“HONDO’S
TEAM
COM-
PETES
AGAINST
APPROXI-
MATELY
3,400
TEAMS
ACROSS
THE
COUNTRY
AND
OVER-
SEAS.”



"THERE ARE NO EXCEPTIONS TO THE RULES. AT THE TIME OF THE CHALLENGE YOU ARE PERMITTED ONE STEP AND AN ARMS REACH TO LOCATE YOUR COIN."



RULES FOR COIN CHALLENGE

One of the best traditions with CyberPatriot is coin checking. As of two weeks ago everyone on the team has been awarded a CyberPatriot XII coin. This means that you must always carry your coin. Here are the rules for the coin challenge for those of you that don't know how a coin challenge works.

A. The challenge is initiated by drawing your coin, holding it in the air by whatever means possible and state, scream, shout or otherwise verbally acknowledge that you are initiating a coin check. Another, but less vocal method is to firmly place it on the table or floor (this should produce an audible noise which can be easily heard by those being challenged, but try not to leave a permanent imprint). If you accidentally drop your coin and it makes an audible sound upon impact, then you have just "accidentally" initiated a coin check. (This is called paying the price for improper care of your coin.)

B. The response consists of all those persons being challenged drawing their coin in a like manner.

C. If you are challenged and are unable to properly respond, you must buy a soda or water for the challenger and the group being challenged.

D. If everyone being challenged responds in the correct manner, the challenger must buy a soda or water for all those people they challenged.



**The XII 2019-2020
CyberPatriot
Challenge coin.**

2. WHEN - WHERE: A. Coin checks are permitted, ANY TIME, ANY PLACE.

3. EXCEPTIONS: A. There are no exceptions to the rules. At the time of the challenge you are permitted one step and an arms reach to locate your coin. If you still cannot reach it -- SORRY ABOUT THAT!

THE 2019-2020 HONDO CYBER OWLS



Our team from left to right. Melisa Joyner (Left) Jackson Cunningham, Reese Simpson, Logan Estes, Alfredo Ivar, David Councilman Jr. , Frank Hall (Right)

HONDO CYBER OWLS CYBERPATRIOT TEAM

WE MONITOR NETWORKS BY SOARING THROUGH CYBERSPACE HUNTING FOR PREY. WE USE OUR TALONS AS A DETERRENT TO PROTECT OUR DATA. USING ADVANCED DETECTION TECHNIQUES, WE SPREAD OUR WINGS AND LAUNCH PRECISE COUNTER MEASURES TO DEFEND OUR NETWORKS AGAINST CYBER ENEMIES. WE FIND, CAPTURE, AND ANNIHILATE ALL CYBER THREATS. WE ARE THE CYBER OWLS!

HONDO CYBER OWLS CYBERPATRIOT TEAM

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ANGELA M. HALL—
CHIEF EDITOR OF THE
CYBER TALON



ABOUT THE HONDO CYBERPATRIOT TEAM



The Vision

The vision of the Hondo Cyber Owls CyberPatriot program is to promote cyber awareness, computer security practices, and cyber ethics. All of these are essential attributes for creating a secure network infrastructure, teaching the students how to detect threats, and how to defend against cyber-attacks in a safe virtual environment.

The skills and knowledge the students will gain from participating in this program will give them an advantage to obtain information technology certifications, scholarships in computer related fields of study, and ultimately provide an opportunity to start a great career in information technology and cyber security.

The Mission

The mission of the Hondo Cyber Owls CyberPatriot program is the proper instruction and implementation of information technology principals and cyber security practices. All students will be taught how to use various operating systems, interconnecting network devices, and how to secure the entire infrastructure. The students will also be taught how to properly use tools and methodologies to assess and troubleshoot problems that range from inoperable workstations to misconfigured networking equipment. These are the skills that will be necessary to compete in the CyberPatriot competitions and will enable us to advance to each round and ultimately to the national finals.