Medina Valley High School CyberPatriot Team November 2023 Volume 7, Issue 1



# BITS AND BYTES

#### UNLEASHING THE CYBER VIKINGS!

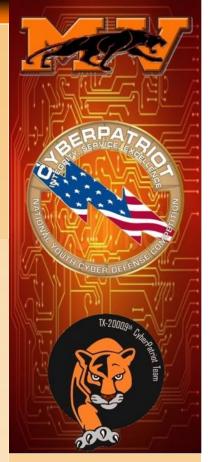
Welcome back to the electrifying realm of cyber activities! This marks the thirteenth consecutive year of the TX-20009th AFJROTC's riveting participation in the CyberPatriot competition. The cyber saga unfolds with two formidable six-member squads from our Medina Valley AFJROTC, passionately engaged in the CyberPatriot Youth Cyber Defense Competition. Embracing the digital battleground, the collective genius of the Medina Valley TX-20009th AFJROTC CyberPatriot team proudly bears the moniker - the Cyber Vikings, inspired by none other than Coach Hall, known far and wide as "The Cyber Viking".

In the heart of the action, Medina Valley AFJROTC boasts not one, but two formidable six-member teams in the CyberPatriot Youth Cyber Defense Competition. Drumroll, please! Introducing the Cyb3r B0mb3rs, an all-boy squad, maintaining their Platinum Tier status for the third consecutive year. Meanwhile, the Dec0d1ng Dumpl1ngs 2.0, our trailblazing all-girl team, have ascended to the prestigious Platinum Tier. A hearty congratulations to both teams for their commendable achievements!

Breaking barriers and pushing boundaries, this year, Medina Valley had the privilege of being invited to the Deloitte Capture the Flag (CTF). Six exceptional members of our AFJROTC and Open CyberPatriot teams participated in this in-person extravaganza at the 20223 Alamo ACE. Battling against 30 competitors from San Antonio and Austin, our joint team clinched an impressive 4th place, leaving an indelible mark on the cyber landscape.

As the season progresses, the Cyber Vikings are making a lasting impact on both the national and local cybersecurity scenes. However, this is just the beginning of our journey! In collaboration with friends and colleagues, we're brewing up exciting new cyber activities to explore beyond the CyberPatriot season. Keep an eye out for upcoming cyber adventures!

Cyber Like A Viking! Coach Frank "Odin" Hall



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"In a testament to their proficiency, the MV Cyber Team secured an impressive 4th place in the competition. This achievement speaks volumes about the dedication and competence of the team members"



#### MV CYBER EXCELS IN AFCEA ALAMO ACE WITH IMPRESSIVE PERFOR-MANCE IN DELOITTE CTF CHALLENGE



In a thrilling showcase of skill and camaraderie, the members of the Medina Valley AFJROTC and Open Division CyberPatriot teams left an indelible mark at the AFCEA Alamo Chapter Alamo ACE. This year's event saw six elite teams, including Medina Valley, engaging in-person, while an addi-

tional 24 teams from San Antonio and Austin battled it out online. The spotlight of the event was undeniably on the challenging Deloitte Capture the Flag (CTF) competition, expertly organized by the CyberTexas Foundation.

Throughout the competition, the Medina Valley team exhibited not only their technical prowess but also their ability to collaborate seamlessly. Observing them tackle the intricate challenges, solve problems, and revel in their victories underscored the essence of teamwork in the cybersecurity domain.

For those unfamiliar with the term, a Capture the Flag (CTF) competition serves as a crucible for testing the knowledge of individuals or teams through a competitive and practical exercise. It provides an avenue for participants, ranging from students to seasoned cyber professionals, to broaden their skill set and deepen their understanding of cybersecurity techniques.

The Deloitte CTF, designed in a Jeopardy style format, featured categories such as Cryptography, Reverse Engineering, General Knowledge, and Steganography. Each question carried a designated point value, with increasing difficulty corresponding to higher point values. The strategic placement of challenges tested the participants' versatility across diverse domains within the cybersecurity landscape.

In a testament to their proficiency, the MV Cyber Team secured an impressive 4th place in the competition. This achievement speaks volumes about the dedication and competence of the team members, showcasing their ability to navigate complex scenarios and emerge victorious.

Participating in CTF events not only fosters healthy competition but also serves as an invaluable learning experience. These competitions provide a platform to acquire new skills, apply problem-solving techniques, and gain insights into the real-world challenges faced by cybersecurity professionals. The MV Cyber Team's success in the Deloitte CTF highlights their commitment to excellence and positions them as a formidable force in the ever-evolving field of cybersecurity.

## MEDINA VALLEY CYBERPATRIOT: USING VIRTUAL MEETINGS TO EXTEND PRACTICE

In this year's CyberPatriot XVI, we're proud to announce the participation of not one, but two Platinum Tier teams. But what does it mean to be in the Platinum Tier? These teams represent the cream of the crop, ranking within the top 30% of all teams in the All Service Division. Being part of the Platinum Tier also grants them the exclusive opportunity to qualify for the National Finals Competition.

Teams are categorized into tiers based on their cumulative scores from Round 1 and Round 2. As we gear up for the State Round (Round 3), all our teams are diligently preparing for the cyber showdown in the Lone Star State. Each team will vie for a State award, with the ultimate goal of emerging victorious in the cyber battle for Texas. To secure a spot in the semi-final round, teams must achieve a position in the top 25% of their

skill tier.

Mark your calendars, as the State Round is set to kick off on December 7, 2023, and will conclude on December 11, 2023. Our very own Medina Valley AFJROTC CyberPatriot teams will be in action on December 8th, showcasing their skills and determination. Stay tuned for updates as our teams embark on this exciting cyber journey!



DEPICTION OF THE TIERING AND TERM ADVANCEMENT FOR THE ALL SERVICE DIVISION.

"This was a great way to socialize and learn more about what opportuniti es are out there in the cyber security field."



"This competition was to help you learn, to see a different type of cyber competition, and apply what you learn here to apply it to the CyberPatriot competition"



#### THE CYBER VIKING SYSLOGS #CYBERCHATS CHALLENGES UNVEIL CYBERSECURITY WORLD



In the dynamic realm of cybersecurity, the MV AFJROTC CyberPatriot team members are gearing up for this year's challenges with a strategic edge—thanks #CYBERCHATS CHALLENGE to their dedicated participation in the National Cryptologic Foundation's

(NCF) Podcast #CyberChats. Spearheaded by the insightful Jennifer Langdon, this podcast dives into the minds of cyber leaders, academia experts, and high school students making waves in the industry.

What sets #CyberChats apart is its unique twist—a cyber challenge accompanying each episode, akin to a Capture the Flag competition. These challenges span specific areas such as web exploitation and Open Source Intelligence (OSINT), where participants must uncover the precise location of a photographed scene. It's not just about talk; it's about actionable skills.

This season, #CyberChats has upped the ante by partnering with

MetaCTF, injecting an extra dose of excitement into the challenges. With 2-3 questions per episode varying in difficulty and points, MetaCTF introduces a live scoreboard that keeps everyone on their toes, showcasing their current standings. Team camaraderie is at its peak as members strive to surpass their coach's score, turning it into a friendly yet fierce competition.

As the team dives into the cyber challenges laid out by #CyberChats and MetaCTF, the hope is high, and the stakes are even higher. In the previous season, the Hondo Cyber Owls clinched the coveted #CyberChats Group Team Award, earning them a well-deserved victory celebration—a pizza party, an envy-inducing swag box from NCF, and a virtual talk with Mr. Mark S. Loepker, the esteemed NCF Education Advisor.

Now, with a new season on the horizon, the challenge is clear—win the title and prevent Hondo from securing another victory. The journey promises to be intense, filled with Stay tuned for updates as the MV AFJROTC Teas embark on this cybersecurity odyssey, armed with knowledge gained from #CyberChats and the burning desire to etch their names in the annals of cyber excellence. May the bits and bytes be ever in their favor!

"A CTF practice site or competition is a great way to learn new skills that are useful in cybersecurity. They are also the perfect way to enhance your knowledge about the use of techniques..."



Medina Valley High School

CyberPatriot Team

We are the Medina Valley CyberPatriots!! We are the cyber warriors that relentlessly defend networks from attack. Our cyber hunting skills cannot be matched. We find threats, eliminate them, and strategically launch counter attacks against our cyber enemies. We are CyberPatriots!!

Medina Valley High School

CyberPatriot Team

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Angela M. Hall—Chief Editor

#### ABOUT THE MVHS CYBERPATRIOT TEAM

### The Vision

The vision of the Medina Valley CyberPatriots 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 Medina Valley 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.