COMBATING CYBER-

BY SEAN M. HOLT, M.B.A.

MARITIME ATTACKS

> “ *We’re in a world today where it’s not enough to be secure. You have to prove you’re secure.”*
>
> *- Chris Krebs, Former Director of the Cybersecurity and Infrastructure Security Agency*

On September 11, cyberattacks on Caesars Entertainment and MGM Resorts attracted worldwide attention. The companies’ global operations, share prices – and possibly credit ratings – were severely impacted.

The method of attack against MGM: ransomware-as-a-service (RaaS) made by ALPHV, or BlackCat, and social engineering by impersonating an employee they found on LinkedIn in a call known as "vishing" ("voice" plus "phishing") to MGM's IT help desk. Vishing gained attackers login credentials or a one-time password to bypass multifactor authentication and enter the system.

After three days of being paralyzed, Caesars purportedly shelled out $15 million to the hacking group Scattered Spider, also known as Roasted 0ktapus or UNC3944.

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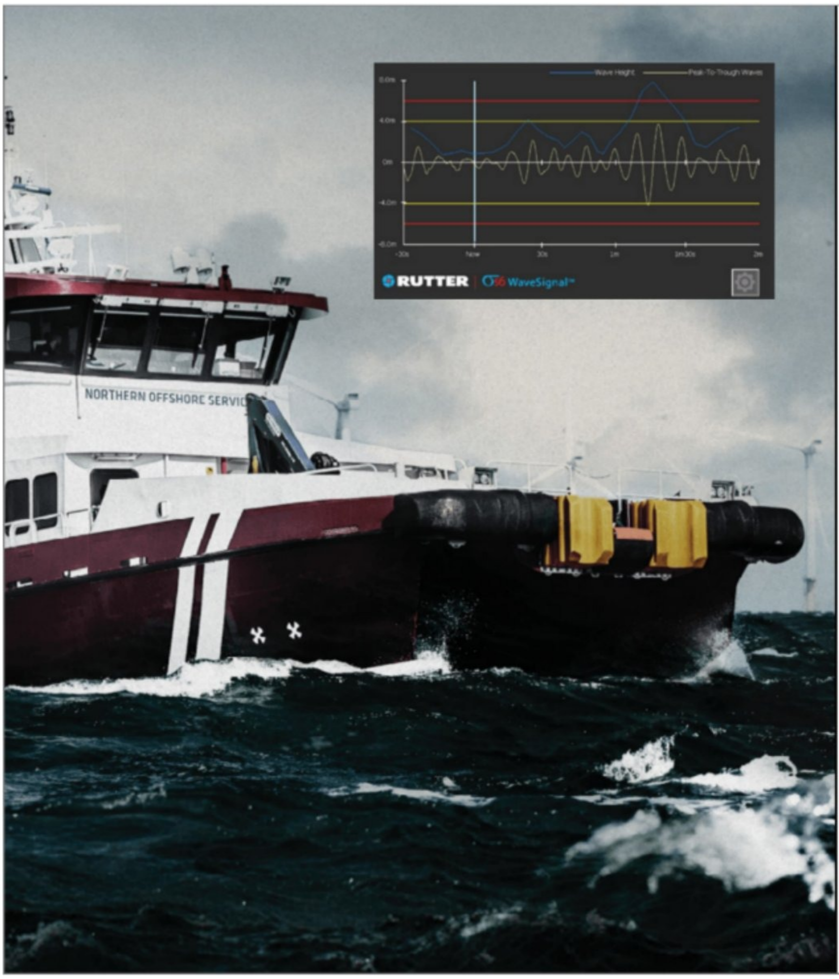
To help defend against the dark arts, we caught up with industry and government leaders to gain cybersecurity insights.

CYBERCRIMINALS ARE WINNING

"The cybercriminals are winning," says Brian Foremny, Chairman of Fort Lauderdale-based SECNAP Network Security. "In 2015, the total worldwide global ransomware damages were $325 million. By 2017, it grew to $5 billion. By 2021, it was in the $20 billion range."

With the current global annual spend on cybersecurity at approximately $150 billion, the *Wall Street Journal* projects it will reach $265 billion by 2031. "The problem isn't from a technical standpoint," Foremny explains, "it's that effective solutions haven't been affordable by anyone other than the Fortune 1000/Global 2000 companies. Large enterprises, with notable exceptions, rarely get hacked. Small- to mid-market enterprises (SME) become easy targets by not deploying a complete security solution."

SECNAP, having been in business since 2001, has recently entered the maritime space with its CloudJacketXi product and is on a mission to help underserved SMEs



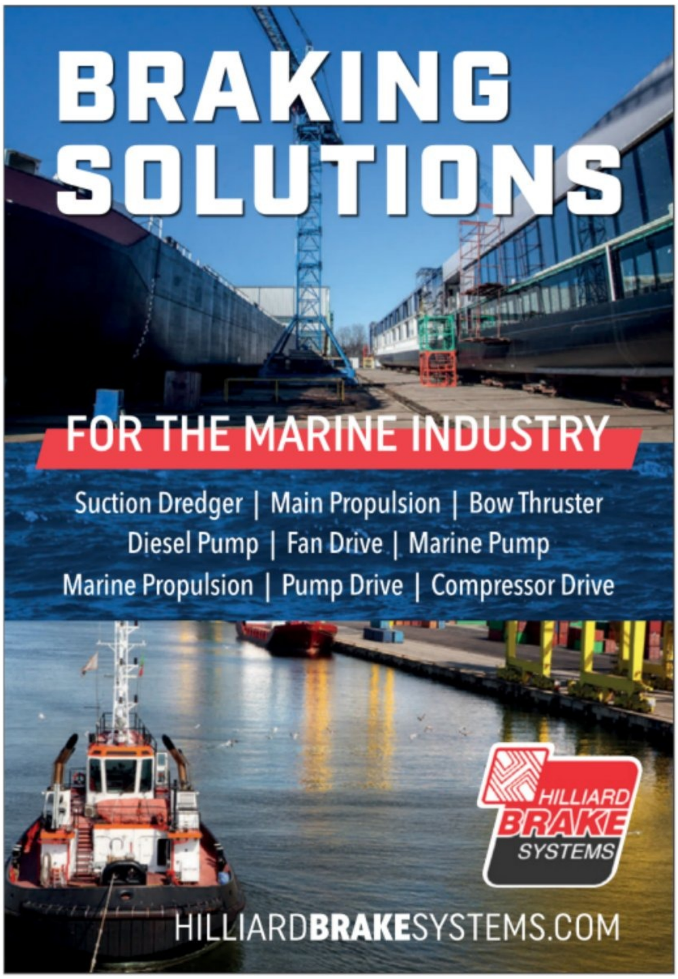
for less than a pumpkin-spiced latte a day. Foremny says criminal organizations such as ALPHV lease or license RaaS to smaller, less sophisticated gangs that become affiliates and share the bounty.

To address the growing threat, U.S. Presidential Executive Order (EO) 14028 was issued in May 2021 to address specific technologies and practices for government agencies, critical infrastructure and private companies. Foremny says when the EO was published, most ransomware deployed by gangs targeted endpoints like laptops and mobile devices. Now, sophisticated malware creators and developers have created a new generation of malware that is not detectable by endpoint detection and response (EDR).

"The crown jewels of companies don't reside on laptops," he adds. "They're kept on servers or cloud networks." Such evolving attack vectors force cybersecurity providers, like SECNAP, to constantly remain ahead of threats.

GUARDING AGAINST THREATS

In an exclusive interview, U.S. Coast Guard Rear Admiral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Rather than focus on a few specific threats, he says the marine industry can protect our nation's critical infrastructure by implementing systems and processes that prevent and respond to various cyber threats.

Wayne Arguin, Assistant Commandant for Prevention Policy, points out how increased reliance on digital systems has triggered a rise in cyberattacks: “Digital systems help make the marine transportation system the most economical, efficient, environmentally friendly way to transport products worldwide. These same digital systems also create complicated interdependencies, vulnerabilities and risks, and their prevalence in the industry is only growing.”

He explains the Coast Guard's role in all of this: “By working closely with the National Security Council, intelligence community, partner agencies and foreign partners, the Coast Guard can best understand threats from state-sponsored and downstream cyber actors. We help the maritime community reduce vulnerabilities and mitigate consequences. Whether state-sponsored or not, the same practices that defend against all potential cyber adversaries – access control, multifactor authentication, network segmentation and incident response planning – help defend against threats.”

PERSONNEL PARTICIPATING IN THE CYBER COMPONENT COMMANDERS' CONFERENCE LISTEN TO LT. CMDR. TODD BATTEN ON THE BRIDGE OF COAST GUARD CUTTER *LEGARE*.

He says the most pressing cyber threats can lead to a long-term disruption of the marine transportation system: “Ransomware remains a major risk for the maritime community. Even if ransomware does not directly impact an operational technology system, a loss of ability to

manage business operations could have cascading impacts on the supply chain."

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"Following best practices, reporting incidents to the Coast Guard's National Response Center, and sharing information with their local Area Maritime Security Committees are key actions that protect our Marine Transportation System," he advises. "The Coast Guard has significantly increased our capability, and our Cyber Protection Teams can support the maritime community before or after an incident with vulnerability assessments, on-network threat hunting and post-incident response."

He notes that "The Cyber Protection Team's cyber skills are unprecedented for the Coast Guard. The Coast Guard also established maritime-focused cyber specialists in every Captain of the Port Zone. They are civilian employees serving as the focal point for port-level cyber coordination across industry and government. During compliance inspections, many companies have indicated they would like more details on conducting vulnerability assessments and accounting for them in their plans. Based on this feedback, the Coast Guard released its *Maritime Cyber Assessment and Annex Guide* to aid the industry in its efforts to harden their networks."

In addition, he points out that "The United States is a member state of the IMO and works closely to address cyber risks in the shipping industry. For example, the IMO released guidelines for addressing maritime cyber risk management in a vessel's Safety Management System (SMS). More recently, the IMO is undertaking an effort to revise its Guidelines on Maritime Cyber Risk Management and identify the next steps to enhance maritime cybersecurity. One example is the Cybersecurity and Infrastructure Security Agency's (CISA) Cross Sector Cybersecurity Performance Goals. These are not

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Reinforcing the recent MGM cyberattacks, Bhalotra adds, "We see more and more attacks against senior executives, particularly ones that approve financial transactions. They're very visible on social media and give keynote speeches at conferences" – thus opening the door for similar social engineering cyberattacks.

regulatory mandates but a comprehensive set of cyber protections that clearly define and address the common and impactful cyber risks. Effective implementation of these protections greatly decreases the vulnerabilities seen during Cyber Protection Team assessments.

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CYBERATTACKS & REPORTING REQUIREMENTS

Back in April, ABS Wavesight, a software-as-a-service (SaaS) company, and ActZero, a managed detection and response (MDR) provider, allied to deliver cybersecurity solutions to the global fleet. Paul Sells, CEO of ABS Wavesight, says, "The proliferation of connectivity and expansion of the digital landscape in shipping increases our reliance on tools to help run business aboard ships."

U.S. ARMY GEN. PAUL NAKASONE (MIDDLE) AND COAST GUARD CAPT. KEVIN CARROLL (RIGHT) PARTICIPATING IN THE CYBER COMPONENT COMMANDERS' CONFERENCE.

Sameer Bhalotra, Co-founder & CEO of ActZero, who was former Senior Director for Cybersecurity on the National Security Council and currently is a member of the U.S. Secret Service Cyber Investigations Advisory Board, states that "Organized crime groups around the world have gotten really good at launching cyberattacks that render computers unusable. You can't log into your email. You can't communicate with your employees. You can't talk to your customers. You can't talk to your ships and your fleet. You can't do banking, make payments, or make payroll. All your computer networks are just frozen. These big, organized, current groups are very sophisticated businesses. They're not like a teenager in their basement hacking. They have finance departments, recruiting, payroll twice a month and support for their people to launder the money."

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Bhalotra provides maritime cyberattack examples: "In 2021, a big Japanese shipping company had two breaches in the same year. The largest took ten days to contain and recover. When they couldn't manage their fleet, it was a huge loss. In

In September, ActZero was named "Partner of the Year for the Americas" by famed cybersecurity technology company CrowdStrike. "We use A.I. and highly trained specialists in our three global operations centers to identify and block attacks in milliseconds," Bhalotra notes.

June of the same year, a South Korean shipping company was hacked. A few months later, a big containership company lost all its customer data. In November 2021, both a Singapore and Greek company lost confidential information including proprietary data on their customers. Whether it's state-sponsored groups trying to steal government secrets and stop critical infrastructure in preparation for war or organized crime trying to make money off the dark web, it's really bad. The U.S. Secret Service is paying big money for information trying to find these hackers because they're killing businesses."

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Bhalotra concludes by advising: "When choosing a security information and event management (SIM) solution – which will hook up to every node, switch, firewall, endpoint, host, device and system to log and analyze billions of pieces of information – trust with the solution or partner is paramount. Furthermore, many governments, including the U.S., require disclosure of breaches [as noted by MGM's recent U.S. Securities & Exchange Commission K-8 filing]. Companies must disclose what happened, who's affected, and how to fix it. We now even see insurance companies requiring coverage."

BATTEN DOWN THE CYBER HATCHES

Given maritime's increased reliance on digital systems, evolving cyber risks are here to stay. The days of shrugging off cybersecurity threats due to illiteracy or intimidation are over. Don't give up the ship!

***Mar*Ex**

SEAN HOLT writes from Singapore.