



Ship operators cannot afford to turn a blind eye to cyber security

Whilst investigating a cyber incident onboard a ship the USCG found that the security risk presented by the shipboard network was well known among the crew before the incident.

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In February 2019, a deep draft vessel on an international voyage bound for the port of New York and New Jersey reported that they were experiencing a significant cyber incident impacting their shipboard network. An interagency team of cyber experts, led by the Coast Guard, responded and conducted an analysis of the vessel's network and essential control systems. The team concluded that although the malware significantly degraded the functionality of the onboard computer system, essential vessel control systems had not been impacted. Nevertheless, the interagency response found that the vessel was operating without effective cybersecurity measures in place, exposing critical vessel control systems to significant vulnerabilities."

Recommendations

- segment shipboard networks into “sub-networks” to prevent unauthorized access to essential systems and equipment;
- eliminate the use of generic log-in credentials for multiple personnel by creating unique, password or ID-card protected, network profiles for each employee;
- grant a limited set of privileges to each user, i.e. limit network access rights for users to the bare minimum permissions they need to perform their work;
- establish clear procedures for the use of external media, such as USB sticks and other devices used to transfer data via USB drives;
- install basic antivirus software; and
- establish a software patch/update management policy. Vulnerabilities impacting operating systems and applications are constantly changing and timely updates is one of the most important steps you can take to protect your computer systems from cyber criminals.

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machinery.

Additional recommendations are also available in our insight “ [It is time to strengthen your onboard cyber security procedures](#) ” of 12 December 2018.

Gard’s safety awareness campaign on cyber security

While the IMO has given shipowners and operators until 2021 to incorporate cyber risk into ships’ safety management systems, cyber criminals are already at work. Data is an asset and protecting it requires a good balance between confidentiality, integrity, and availability. Cyber security depends not only on how shipboard systems and processes are designed but also on how they are used - the human factor.

It is therefore important that seafarers are given proper training to help them identify and report cyber incidents. Based on our analysis of cases involving cyber security, Gard and DNV GL have produced a [loss prevention awareness video](#) and a presentation with some recommendations for how the maritime industry can address the issue. The material is not intended to suggest any industry changes or rule changes, but rather changes in the way people behave and act.

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