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REVISION OF THE GUIDELINES ON MARITIME CYBER RISK MANAGEMENT
(MSC-FAL.1/CIRC.3/REV.2) AND IDENTIFICATION OF NEXT STEPS TO ENHANCE
MARITIME CYBERSECURITY

IAPH Cyber Resilience Guidelines for Emerging Technologies

Submitted by IAPH

	SUMMARY
Executive summary:	With this submission, IAPH presents new Cyber Resilience Guidelines for Emerging Technologies in the Maritime Supply Chain containing key considerations, best practices and regulatory recommendations to ensure secure implementation of evolving technologies.
Strategic direction, if applicable:	2
Output:	2.8
Action to be taken:	Paragraph 9
Related documents:	MSC-FAL.1/Circ.3/Rev.3; MSC 107/17/28; MSC 109/7/1 and FAL 49/8/1

Background

1   In July 2021, IAPH published its Cybersecurity Guidelines for Ports and Port Facilities. The Guidelines were brought to the attention of both the IMO Facilitation (FAL) and Maritime Safety (MSC) Committees and following the MSC 104 and FAL 46 respective decisions, they were recognized and referenced as industry standards within the *Guidelines on Maritime Cyber Risk Management* (MSC-FAL.1/Circ.3/Rev.3).

2   At MSC 107, the Committee agreed to establish a new output to undertake a comprehensive review of the 2017 *Guidelines on Maritime Cyber Risk Management* (MSC-FAL.1/Circ.3/Rev.2) and identify possible next steps to enhance maritime cybersecurity. This was endorsed by IAPH in document MSC 107/17/28 which further highlighted the critical importance of cybersecurity as an inherent component of the maritime single window (MSW) and all development of digital infrastructure in ports and maritime transport. IAPH reiterated its support to amend these guidelines by co-sponsoring document MSC 109/7/1 which proposed to further develop cybersecurity standards for ships and port facilities to enhance maritime cybersecurity.

3   Furthermore, in recognizing the vast opportunities and risks of operating in an increasingly digital landscape, IAPH co-sponsored document FAL 49/8/1 proposing a way forward for the development of an IMO strategy on maritime digitalization.

4   In light of these proposals, IAPH is developing a new set of Cyber Resilience Guidelines containing a framework for mitigating cyber threats associated with new and evolving technologies in the maritime industry, including key considerations, best practices and regulatory recommendations to ensure secure implementation of emerging technologies. This submission provides an overview of the Guidelines that are due to be published in the second quarter of 2025, along with a link to a summarized version.

IAPH Cyber Resilience Guidelines for Emerging Technologies in the Maritime Supply Chain

5   The rapid adoption of emerging technologies in the maritime supply chain presents significant opportunities for efficiency, security and sustainability. However, these advancements also introduce new and evolving cybersecurity threats that require proactive risk management and mitigation strategies.

6   The new IAPH Cyber Resilience Guidelines for Emerging Technologies serve not only as the next set of guidance for ports to protect themselves against cyber threats. They also aim to encourage ports to embrace those technologies with the immense potential they have to innovate, advance digitalization and bring with it a more efficient, sustainable and predictable flow of cargo through our world's ports and the wider maritime supply chain.

7   Specifically, they provide a comprehensive assessment of the cybersecurity risks associated with seven key emerging technologies, which were selected following a poll conducted in an IAPH webinar in 2024: quantum computing, artificial intelligence (AI), drones, the internet of things (IoT), 5G, automation and green energy. The Guidelines also offer targeted recommendations for each technology to enhance cyber resilience across the industry.

8   A summarized version of the IAPH Cyber Resilience Guidelines for Emerging Technologies in the Maritime Supply Chain is available at: https://www.iaphworldports.org/n-iaph/wp-content/uploads/2025/04/IAPH-CS-Guidelines-IMO-Summary-Headed-Paper-2.pdf

Actions requested of the Committee:

9   The Committee is invited to take note of:

   .1   the IAPH Cyber Resilience Guidelines for Emerging Technologies in the Maritime Supply Chain; and

   .2   acknowledge and disseminate the Guidelines once published as appropriate.

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