MINISTRY OF ENVIRONMENT, ENERGY AND THE SEA

Directorate-General for Infrastructure, Transport and the sea

Maritime Affairs Directorate

- CYBER SECURITY -

reinforcing the level of the ship

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Goal :

*Make ship's owner aware of cyber risks.*

Vulnerabilities ...

- The vulnerability of information and operationnal ship's equipment systems and the dependence of the ship on these systems,

- The interconnectivity of information systems on and off the ship,

- The development of Internet Of Things (IOT), smartphones or tablet...

- The failure to implement an information or operationnel technologies security plan and contingency plan on board the ship,

- Lack of crew training to assess malicious acts.
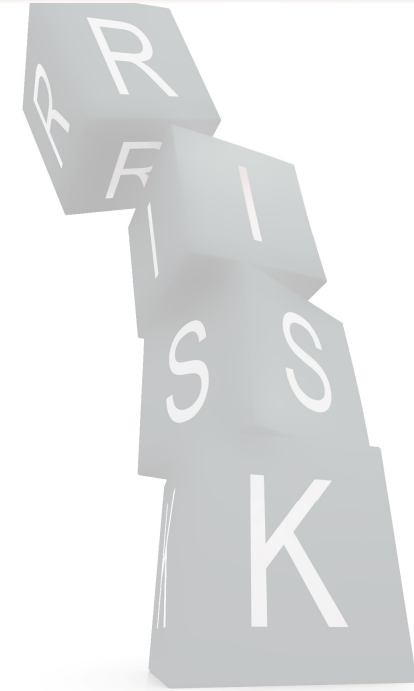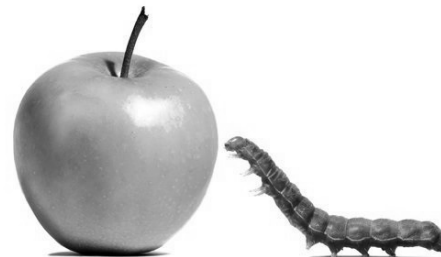
... Risks.

- A breach of the company's image may lead to a loss of competitiveness of the company,

- The sabotage of the ship by a dormant system or operated on demand which can lead to the loss of the ship, the loss of the crew or damage to the environment.
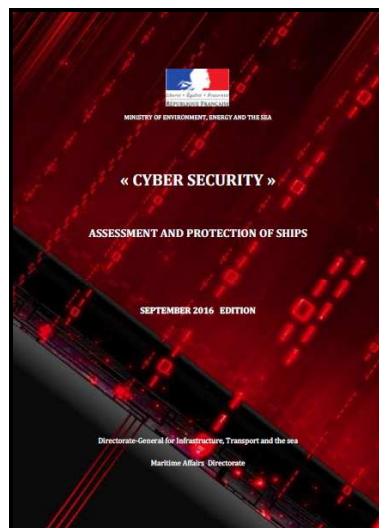
Guideline n°1

(Investigations = 7 guidance cards)

Issue from investigations, this document describes the measures to be implemented in order to raise the level of ship's protection.:

- **R1**/ Digital reliability of the ship,
- **R2**/ Governance,
- **R3**/ Access and data exchange management,
- **R4**/ Exchanges security,
- **R5**/ Operation continuity,
- **R6**/ Traceability and audit,
- **R7**/ Confidentiality.

Guideline n°2

(A risk assessment)

This document issue from risk assessment analysis of guidance n°1 describes actions that should be engaged by the company to raise cybersecurity level of ship's Industrial Control System. Three levels meet this demand :

- **L1**/ Global security strategie and management of internet of things (IOT),
- **L2**/ Passive monitoring,
- **L3**/ Hardening configuration of industrial supervision chain systems.
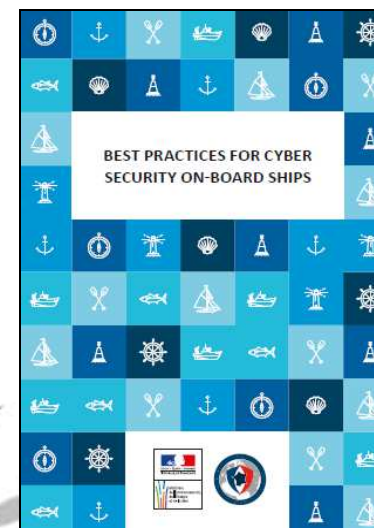
Guideline n°3

(Raise seafarers awareness)

This last guidance aims at raising the awareness of seafarers in order to better understand cyber risk. The actions concern the "hygiene" measures to have :

- Choose strong passwords,
- Use e-mail carefully,
- Separate personal and professional uses,
- Be careful on the Internet,
- Save your data on a regular basis,
- Control installed software on your IT devices…

WEBSITE : http://www.developpement-durable.gouv.fr/surete-des-navires-et-surete-portuaire