The human element and human-system aspects of risks in the context of total HSSEQ onboard ship

Alert!

HSSEQ - Risks & Hazards

Externally driven / **Internally driven** / **Externally driven**

On ship/Ship

Computer hacking
Slip, trip & fall hazards
Insufficient spares
Noxious substances
Fire
Flood
Effects of piracy/robbery
Effects of terrorist attack

Propulsion failure
Power failure
Machinery failure
Systems failure
Equipment failure
Computer failure
Poor maintenance
Insufficient spares

Crew

Operator error
Isolation
Depression
Fatigue
Poor health
Disease
Communication
Teamwork
Piracy/robbery

Experience
Education & training
Risk awareness
Manning levels
Food preparation
Catering
Medical
PPE

Off ship/voyage

Communications failure
Breakdown
Navigational failures
Other vessel collision

Port disruption
Terrorist attack
Piracy
Robbery
Cyber attack

Environment on/off ship

Noise
Vibration
Heat
Lighting
Cargo

Heavy weather
Ice
Extremes of heat
Extremes of cold
Heavy seas
Air pollution
Water pollution
Oil pollution
Cargo

The Process

Communicate & consult

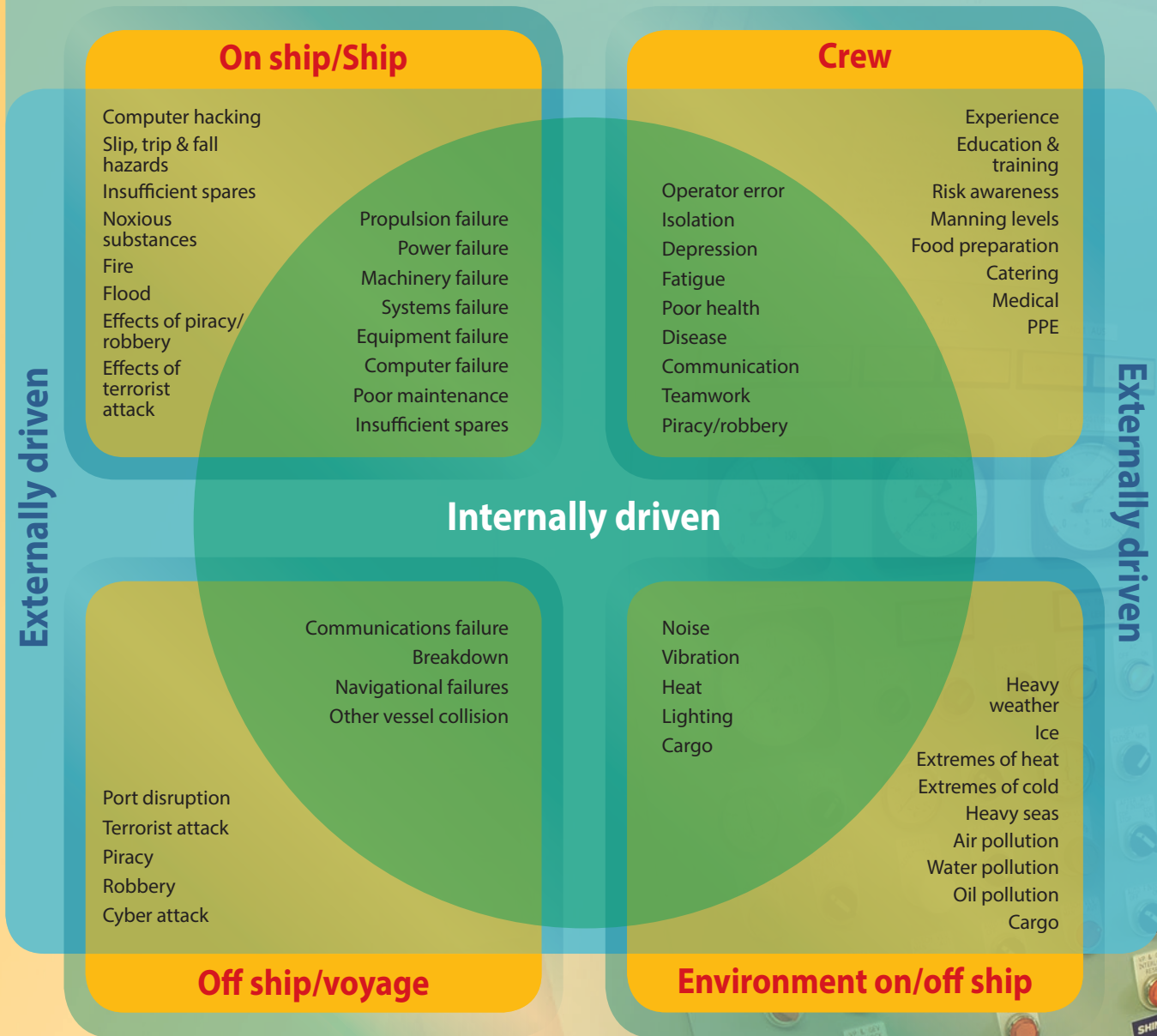Establish the context → Identify risks from/to crew → Analyse & evaluate risks → Address human element in treatment of risks

Monitor & review

Issue No.26
A human-centred approach to HSEQ

http://www.he-alert.org/filemanager/root/site_assets/centrespreads/centrespread_26.pdf

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There are a growing number of codes and standards and guidelines related to different aspects of maritime Health Safety, Security, Environmental and Quality (HSSEQ) management, including:

- ISM Code (Safety & Environmental Protection)
- Guidelines for implementing the occupational safety and health provisions of the Maritime Labour Convention, 2006
- ISPS Code (Security)
- ISO 9001 (Quality)
- ISO 31000:2009 (Risk Management)

The core of these is Risk Management, for which ISO 31000:2009 provides generic guidelines. When managing risk it is important to consider the human element.

This centrespread focuses on the human element and human-system aspects of risks in the context of total HSSEQ onboard ship. See also: *A structured approach to Enterprise Risk Management (ERM) and the requirements of ISO 31000* published by the Institute of Risk Management (IRM) -
https://www.theirm.org/media/886062/ISO3100_doc.pdf