

Future-proofing the Maritime Safety Regime

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Chair, Joint Industry Working Group

Tripartite 2023
10 November 2023

Participating in the JIWG:

ASEF

CIMAC

CLIA

ICS

International Group of P&I Clubs

GolbalMET

INTERTANKO

INTERCARGO

IUMI

SIGTTO

BIMCO;

IACS Permanent Secretariat are observing and the following IACS Members are participating:

ABS

CCS

IRS

NK

RINA

LR

The JIWG is chaired by Duncan Duffy.

IMO have nominated an observer to support the discussions.

Address the Regulatory challenges associated with:

- Technology that may offer an **alternative to traditional time-based survey**.
- Increasingly **complex technology** within ships' systems.

Through evidenced examples and benchmarking of other industry sectors.

Then develop outputs including an evidenced **problem statement** and lunchtime presentations for IMO, leading to an **information paper** targeted for MSC, describing the challenge and providing Guidelines on an alternative approaches where appropriate.

The rapid adoption of new technologies to meet multiple objectives leads to complex implementation challenges in a traditional Maritime industry. This may result in an unsafe state on board ships in service. Considerations of safety, improved business performance and extended operational challenges including improved environmental performance can be further complicated by the passing of crew functions to technical systems on and off the ship.

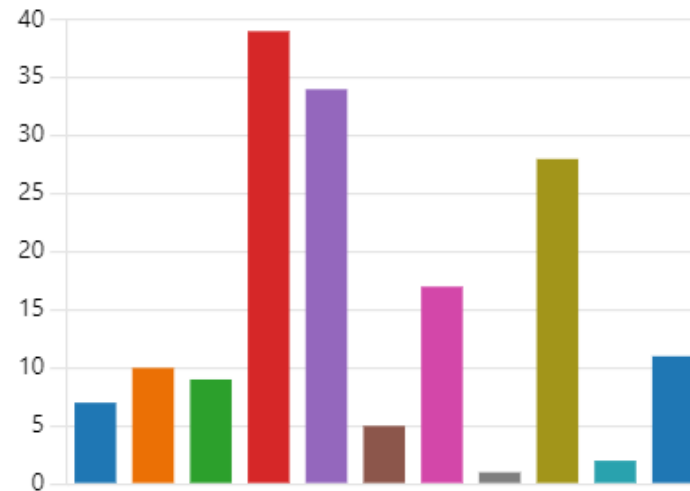
Limited understanding of design principles for these systems, a lack of understanding of the ship as a system, the changing role of the human operator, and the multiplicity of approaches creates integration and assurance challenges that are not obviously addressed by existing Rules and Regulations.

While SOLAS offers generic alternative routes to qualify new technologies, the objective baseline to be achieved and the means of consistently demonstrating compliance may not be either clear or practically applicable. Regulations do not consider alternatives to time-based survey regimes.

As a result, the anticipated benefits are out of reach until the risks are properly understood and managed through the lifecycle. Without future proofing and proper application of Regulations there is an increasing risk to safety of shipping.

To gather data / evidence regarding the validity of the problem statement and examples of regulatory challenges, the JIWG developed and distributed a confidential questionnaire. This questionnaire was live from late December 2022 and closed at the beginning of March 2023 with 163 responses from across the Maritime Industry.

● Ship Designer	7
● OEM or equipment supplier	10
● Shipyard	9
● Shipowner	39
● Ship Management	34
● Maritime Industry Association	5
● Maritime Insurance	17
● Maritime Finance	1
● Classification Society	28
● National Authority / Regulator	2
● Other	11



Quotes from Questionnaire

*My organization (a Research Centre driven by the needs of industry) conducting industrial/applied research encounters **challenges due to system design, interface management and integration.***

*As the technology becomes more sophisticated and complex, **personnel with IT knowledge will be required on board.***

Verification of system and its integration when a black box approach is used and the manufacturer claims to have IP issues to disclose the system/its design fully

It is essential that experienced humans (not just machines/algorithms) continue to survey vessels so that they share their experience with crew onboard

*Shipping is fundamentally different to almost all other industries. **We rely upon and design for humans to respond to incidents** to avoid escalation. On ships we can't apply a fail safe philosophy to all systems as that would result in escalation.*

The last meeting of the JIWG was held on 06 October 2023 and an updated draft paper presented and discussed.

The group advised that the target should be a working paper for IMO MSC, identifying the roadmap steps and making the offer of further work to explicitly identify recommendations for regulatory change.

Following discussion of the most recent draft paper, further work was identified and assigned with a view to complete this by end November 2023, giving time for review by stakeholders prior to the IMO submission date.

Thank You