THE IMO FRAMEWORK AND PROCESS OF SHIPPING REGULATION

Dr. Jens-Uwe Schröder-Hinrichs
Director of Research
Head of Maritime Safety and Environmental Administration
World Maritime University
Mission
IMO’s centre of excellence in postgraduate maritime and oceans education, professional training and research

Global Relevance
A UN specialized institution in Sweden

Postgraduate programs
7 master programs + 1 PhD program in maritime and ocean affairs

Alumni
More than 4000 maritime and ocean maritime professionals from more than 160 countries
In today’s economy, people all over the world rely on ships to transport the commodities, fuel, foodstuff, goods and products on which they depend. Maritime transport is the backbone of international trade and global markets.

Ships have never been so technically advanced, so sophisticated, never carried so much cargo, never been safer and never been so environmental-friendly as they are today.

Kitack Lim
Secretary General of IMO
Chancellor of WMU
1991 Alumnus of WMU (MSA(N))
**INTERNATIONAL MARITIME ORGANIZATION (IMO)**

United Nations Specialized Agency with responsibility for the safety and security of shipping and the prevention of marine and atmospheric pollution by ships

- Legal basis: IMO Convention of 1948
- First Assembly in 1959

**Global Relevance**

- 174 Member States and 3 Associate Members
- 81 international non-governmental organizations in consultative status with IMO
- 64 intergovernmental organizations which have signed agreements of cooperation with IMO

**IMO regulations**

- IMO is responsible for more than 50 international conventions and agreements and has adopted numerous protocols and amendments
STRUCTURE OF IMO

Assembly

Council

Maritime Safety Committee

Marine Environmental Protection Committee

Sub-committees on

Pollution Prevention and Response (PPR)

Ship Design and Construction (SDC)

Legal Committee

Technical Cooperation Committee

Facilitation Committee

Human Element, Training and Watchkeeping (HTW)

Implementation of IMO Instruments (III)

Navigation, Communications and Search and Rescue (NCSR)

Ship Systems and Equipment (SSE)

Carriage of Cargoes and Containers (CCC)
The IMO System of Regulations is complex as it is based on compromises agreed by the international maritime community.

<table>
<thead>
<tr>
<th>Member States</th>
<th>Mandatory Regulations</th>
<th>SOLAS, MARPOL, ... various Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ Partners</td>
<td>Recommendations</td>
<td>Non mandatory IMO Resolutions</td>
</tr>
<tr>
<td></td>
<td>Unified Interpretations</td>
<td>e.g. IACS</td>
</tr>
<tr>
<td></td>
<td>Good Practices</td>
<td>e.g. UK Mega Yacht Code</td>
</tr>
</tbody>
</table>
• Examples of IMO instruments with a mandatory and a recommended part
  • ISPS Code (2002)
  • Maritime Casualty Investigation Code (2010)

• Mandatory regulations
  • They have to be implemented by all member States

• Recommended practices
  • Suggestions for implementation
### Global Approach

- **‘Single’ set of rules**
- **Easy transfers**
- **Multiple Stakeholder Input**
- **Global Industry**

- 48,700 ships (300 GT+) in 2013; 174 states

### Regional/Local Approach

- **Multiple rules**
- **No easy transfers**
- **Fragmented Stakeholder Input**
- **Regional/Local Industry**

- 1,470 offshore rigs in 2015
THE PAST - PRESCRIPTIVE REGULATIONS

Detailed specifications for technical and operational issues on board ships

- Example
- Speed in vicinity of ice during night time in 1914 SOLAS
• Changing the basis for rule making in the 1990s
• Stronger demand for objective evidence when new regulations are suggested or existing are to be amended
  • **Formal Safety Assessment** – the IMO framework for the evaluation of risks
  • Examples of elements of risk-based considerations in IMO instruments
    • **Positions of Aids to Navigation (AtoN)** – to be determined on the basis of risk assessments (SOLAS Convention)
    • **Alternative design** – to demonstrate that suggested design deviations from the prescriptive regulations meet required safety levels (SOLAS Convention)
    • **Places of Refuge** – two types of risk assessment involved in designating places of refuge and making decisions about requests for places of refuge
    • **Associate Protective Measures (APMs)** in Particularly Sensitive Sea Areas – Demonstration of a cause relationship when suggesting APMs
THE NEXT STEP - GOAL BASED STANDARDS

- Limits of prescriptive regulations
- How to keep a complex system of regulations up to date?
  - Example: SOLAS Chapter III
- Is it necessary to regulate every detail?
- Prescriptive vs. Goal based approaches
- Examples
  - Goal-based: “People shall be prevented from falling over the edge of a cliff.”
  - Prescription: “You shall install a 1 meter high rail at the edge of the cliff.”
GOAL BASED STANDARDS WITH SAFETY LEVEL APPROACH

GBS Safety Level Approach

Source: IMO, MSC 99/WP. 8

Obtain existing safety level using risk analysis methodology in FSA

• Establishing goals for safety levels
• Deriving required safety levels for functional requirements and International rules /regulations

The IMO Framework and Process of Shipping Regulation – Jens-Uwe Schröder-Hinrichs – Halifax, Canada – 31 August 2018
RISK BASED APPROACHES IN MARITIME SAFETY

Advantages

- Improved risk frameworks
- Good existing experience
- Multiple Stakeholder Input
- Already widely used in IMO

Challenges

- May alienate some stakeholders
- New resources, new competencies
- Several different approaches
- Varying levels of risk acceptance

Shift From Prescriptive to Risk Based Approaches

The IMO Framework and Process of Shipping Regulation – Jens-Uwe Schröder-Hinrichs – Halifax, Canada – 31 August 2018
THANK YOU FOR YOUR ATTENTION