UNECE
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Regulatory Update

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Autonomy Backdrop

• The growth of autonomy continues to rise exponentially
• New systems and concepts arrive month by month
• These are not all to do with so-called unmanned vessels
• There are some intriguing benefits being identified for conventional ships
• The focus, when it comes to Standards and Regulation, tends to fall on the introduction and operation of vessels that will not necessarily have personnel on the bridge
• These vessels may be ‘autonomous’ but it is more likely that they will be monitored or supervised remotely
Regulation – Where are we?

• Definitions, terms and terminology industry
• UNECE work continues well
• IMO Regulatory Scoping Exercise for Maritime Autonomous Surface Ships (MASS)
• A variety of Rules and Guidelines are in force
• Many standards can be directly applied to these vessels but there will be a need for some new ones
• Dichotomy - the regulatory and standards work is bound to lag behind the reality of an ever increasing number of vessels which are operational
• Whether these vessels are truly autonomous, or being monitored or supervised from a remote station, is not the key question. They must all be seen to be operating within existing regulatory frameworks and standards
Regulation – Where are we?

• Standards are being reviewed:
  – General
  – Context related
  – Risk assessment related
  – Technical

• Safety is paramount

• Trust is a keyword

• Precedent law portfolio growing
IMO Regulatory Scoping Exercise

• The Organization should be proactive and take a leading role on this issue

• RSE to review IMO’s international regulatory framework and to:
  – Determine which provisions apply or not to MASS and may preclude or not MASS operations (as currently drafted)
  – Identify gaps or issues and analyse the best way to address

• Need to take into consideration the human element and legal aspects

• Not a “drafting exercise”

• The work on MASS should be user-driven and not technology driven

• LEG 105 (April 2018) RSE with a target completion year of 2023 for LEG instruments

• MSC to take a coordinating role

Henrik Tunfors – RSE Chair. Jan 2019
Industry Codes

• Pan industry agreement on aspects of MASS development, design, production and operation
• Best practice
• Assurance
• Safety and professionalism
• Training, conduct and personal responsibility
• Compliance and self-regulation
• Improved communications within the industry and the wider maritime community
The Human Element

• The Maritime industry needs to attract and retain bright people
• Considerable effort is being made to establish appropriate training standards, qualifications and accreditation
• It is no longer just a case of considering the ships on their own
• The maritime story starts at the factory and stops at the point of delivery and this needs good people
• Plenty of jobs but they will be different than today
Summary

- We must think multi-modal across all forms of transport.
- There are many ways in which Maritime Autonomous Systems can improve safety and efficiency.
- There are sufficient guidelines and relevant standards for the autonomous industry to continue to grow.
- Industry has a vital role to demonstrate responsible attitudes.
- We must keep autonomy in perspective and not make assumptions which are not accurate.
- There will always be a mix of vessels at sea.
- Humans are critical.
- Safety and security must come first.