

Autonomous Ships: Mass Mutations: Part Two, Regulation

By admin On February 19, 2021 In Insurance Marine News, Keep, Legal, Political Risk, Credit & Finance

Marine-focused legal firm HFW has released an update on its bulletin published in September 2020 last year, which considered the developments of Maritime Autonomous Surface Ships (MASS) in the middle of the impact of the global spread of Covid-19.

Yesterday IMN covered the various types of MASS that were in development. Today we look at the current state of play when it comes to regulation.

As discussed at the Second International Ship Autonomy and Sustainability Summit, safety is a primary concern for regulators and legislators and it will be necessary for legislators to achieve a balance in maintaining high safety standards as well as keeping up with rapid technological developments, said HFW, noting that, while the IMO's review of the existing legislation was ongoing, "the aim of the regulations surrounding MASS must be to ensure that the implementation of MASS will function on a testing and trialling basis". In national law, Norway has been updating its national legislation to reflect the technological advances in autonomous shipping.

Section 25 of the Port and Fairways Act 2019 permits a vessel to apply for a permit to excuse itself from the requirement to have a pilot on board. This legislation came into force in January 2020. However, by November 2020 the Ministry for Transport stated that it had not received a single application for a permit under the new regulations. Norway will be introducing a new transport plan within the next year to combat the issues that are being found between the onshore and offshore operations of MASS.

Since January 2020 Maritime UK has published a fourth revision of the UK Code of Practice (COP) prepared by the UK Maritime Autonomous Systems Regulatory Working Group (MASRWG). The new version contains Industry Conduct Principles and a Code of Practice, with changes to the definition of "Ship Systems" as well as additional chapters on Cyber Security, Pilotage, Dynamic Positioning, and Vessel Data Recording. The Code also shifts from referring to "unmanned" to "uncrewed" vessels.

In Russia President Putin has requested that amendments be made to the current legislation to include regulations for autonomous vessels for introduction in February 2021. In December 2020 a decree was approved allowing the trial of MASS operations based on the IMO Interim Guidelines for MASS trials.

Russia-based Kronshtadt Technologies recently entered into agreements with shipping companies Morspetsservice and SeaEnergy for the development of a commercial fleet of autonomous vessels.

Cyber security

A new chapter of version 4 of the UK COP deals with cyber security, which HFW noted was even more of a key issue currently affecting businesses given the increase in working from home and the concomitant risks.

Paul Dean and Henry Clack have been involved in producing a paper on the impact of cyber risks and seaworthiness of MASS for the Swansea University Colloquium. This is set to be published in 2021 and considers cyber security as a seaworthiness issue.

HFW said that this was becoming a more frequently discussed concept, particularly following cyber security breaches such as the malware attack that hit CMA CGM on September 28th 2020 and the fears and possibilities of technical errors, hacks and cyber piracy. "Cyber Security poses a real threat for autonomous vessels where cyber piracy and dangers such as the possible unauthorised access to remote control systems and attacks could interfere with the operation of a vessel itself", said HFW.

HFW involvement

Global Head of Shipping Paul Dean moderated The International Ship Autonomy and Sustainability Summit held on November 30th. That same month HFW hosted a virtual week of presentations for P&I week covering issues and trends affecting the shipping industry.

The HFW shipping team is helping BIMCO draft the industry's first standard contract for the operation of autonomous vessels. The firm said that many of the provisions would continue to be refined and adapted over time as automation projects start to go live across the industry, to ensure that the standard contract continues to meet the needs of this emerging technology. The new standard contract will be based on the SHIPMAN 2009 agreement for use with autonomous ships, and is expected to be published in 2021.

Finally, the Shipping team attended the 6th MASS Regulatory Working Group Conference, which focused this year on 'Unlocking the future of MASS'.

Sarah Kenny, Chair of Maritime UK, highlighted six issues for discussion which will need to change (to varying degrees) still further before MASS are likely to be widely adopted within the shipping industry.

- technology and standards
- governance and policy
- trust
- transformation and adoption
- skills
- investment.

She concluded by saying "... rather than fearing this technology-driven disruption as it impacts our sector, we must face the reality that there is huge opportunity in transforming and adapting as part of a truly global industry. This requires real, collaborative, and

possibly courageous leadership, and perhaps this is the biggest key of all if we are to unlock this future”.

HFW Conclusion

The firm said that, while we were still yet to see fully autonomous ships operating on an international scale with an international legal framework covering the integration of MASS, there were now a number of projects on the horizon that made widespread adoption seem “tantalisingly close”.

The Yara Birkeland was likely to become operational very soon. Many other projects were reaching their final testing and trialling phases, such as Ocean Infinity’s Armada.

HFW said that the technology was already available and that now what was required were some of the other pieces to fall into place. The regulatory bodies were catching up and we were starting to see national legislative bodies enact legislation to cover the development of MASS.

The work of the MASRWG had driven change and increased awareness and had made significant progress in underpinning principles of design, manufacture and operation of autonomous vessels.

“In order for wider integration to take place, it will be necessary for MASS to be adopted by operators, owners, seafarers and the public generally and to be able to prove that the systems and hardware are trustworthy. Once this is in place, we believe that the investment and skills will follow, which will be transformative”, concluded HFW.

Fuller details at

<https://www.hfw.com/Autonomous-Ships-MASS-Mutations-Feb-2021>