



▶ UNMANNED AND AUTONOMOUS VESSELS – THE LEGAL IMPLICATIONS FROM A P&I PERSPECTIVE

SHIPOWNERS

Unmanned and autonomous vessels are a hot topic in the shipping industry at present but whilst rapid advances are being made on the technical side, is the liability regime keeping pace and what are the implications for P&I cover?

DISTINGUISHING UNMANNED AND AUTONOMOUS VESSELS

To begin with, it is important to draw a distinction between unmanned and autonomous vessels. For the purposes of this article, unmanned vessels (UVs) are defined as vessels without crew on board, but which are controlled remotely from the shore. Whereas, autonomous vessels (ASVs) are pre-programmed vessels that operate using algorithms.

THE EXISTING LEGAL AND REGULATORY FRAMEWORK

Much of the existing commentary on this topic focuses on whether UVs and ASVs fall within the definition of a 'ship' for the purposes of existing regulations and legislation. The general consensus seems to be that UVs can be categorised as ships and, although ASVs don't fit as neatly into this definition, they too would likely still be considered ships.

With this in mind, questions have arisen about the application of key international conventions such as the UN Law of the Sea Convention 1982 (UNCLOS), the International Convention for the Safety of Life at Sea 1974 (SOLAS) and perhaps most importantly, the International Regulations for Preventing Collisions at Sea 1972 (COLREGS).

Attention has focussed on Rules 2 and 5 of the COLREGS as both assume some human involvement. In particular, Rule 2 requires the Master and crew to comply with the Rules and Rule 5 requires every vessel to maintain a proper look out. Which poses the question - how can either Rule be complied with when there are no crew on board? For example, would shore side personnel remotely operating a UV constitute a Master or crew for the purposes of Rule 2? Would a UV with fitted cameras constitute a 'proper look out' and is it even necessary or possible for an ASV to comply with Rule 5 if it is operating on a pre-programmed route?

When you start considering the application of existing civil liability conventions, such as the Limitation of Liability for Maritime Claims Convention 1976 (LLMC), this adds another layer of complexity. Helpfully, the LLMC 1976 defines the right to limit by reference to 'shipowners and salvors' and would therefore seemingly apply to UVs and ASVs. However, as with the other conventions, it was not drafted with them in mind and the application varies depending on the jurisdiction.

In light of this, it is clear that amendments will need to be made to the existing regulatory framework to ensure it remains relevant to UVs and ASVs. It is therefore encouraging that the Comité Maritime International has established an International Working Group on Maritime Law and Unmanned Vessels to draft a Code of Conduct. However, given the length of time it takes to garner international consensus on such issues, it seems likely that the technology and use of UVs and ASVs will soon overtake the existing legal regimes. In the interim, national legislation, contractual wordings and insurance is likely to fill the void. For example, Maritime UK has already published an Industry Code of Practice for Maritime Autonomous Systems Ships (MASS), the intention of which is to set standards and best practice for ASVs of less than 24 metres in length.

LOOKING TO THE FUTURE – WHAT CAN BE LEARNT FROM DRIVERLESS CARS?

When considering how the legal framework may change, it might be helpful to consider another area of the transport industry, driverless cars. The technological developments in this area already far outstrip the shipping industry, with companies such as Tesla and Google having already built and tested driverless cars.

The UK government has heavily invested in this area, as evidenced by Chancellor Philip Hammond's announcement in the recent budget, with a new Transport Bill currently in consideration. As part of this Bill, there is a proposal to create the first driverless car legislation and review the allocation of civil liability between the driver and manufacturer. Early indications suggest that liability could lie with the manufacturer if the accident was caused due to a defect with the design of the product, but with the driver, if it was being operated autonomously at the time of the accident. For individual drivers, there are suggestions that they may require 'no fault' based insurance which would respond if any damage or injury was sustained whilst they were operating the car.

This raises some potentially interesting parallels with UVs and ASVs. For example, if there was a defect with an ASV which caused a collision that could solely be attributed to a software malfunction, should the manufacturer be found solely liable and would this be covered by their product liability insurance? Whereas if a UV was involved in a collision that was partly the fault of the manufacturer and partly the fault of the shore side personnel operating the vessel, would liability be apportioned or would a 'no fault' based liability kick in holding the owner of the vessel solely liable? Whilst the answers to these questions currently remain unclear, given the rising use of this technology across the shipping industry, a solution will undoubtedly be found.

THE IMPLICATIONS FOR P&I INSURANCE

From the Club's perspective UVs and ASVs have some significant potential advantages in terms of reducing the number of claims arising from human error in the navigation of vessels. The Club assesses the cause of all notified claims and on average 38% are caused by human error. In addition, approximately 42% of claims are categorised as personal injury claims, which would significantly decrease were UVs and AVs to become more commonplace, as well as reducing wage bills.

The P&I cover sold by the Club obviously responds to Members' third party liabilities and whilst the regulatory framework struggles to keep pace with these changes, the Club recognises that it must adapt quickly and help lead the way.

This is one of a series of articles produced by the Club on the topic of unmanned vessels from the Club's perspective. [View the series so far.](#)