

UK Sets Out the Future Regulation of Autonomous Vessels

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PRACTICES Shipping, Autonomous Transportation, Offshore Oil and Gas

The UK government has published its response to the consultation on the Future of transport regulatory review: maritime autonomy and remote operations in relation to Maritime Autonomous Surface Ships (“MASS”) and has recommended that existing maritime legislation is amended to legislate for the operation of MASS in UK waters.

The MASS market already consists of over 1,000 vessels and has an estimated market value of US\$88 billion worldwide. It is projected that this could grow to US\$150 billion by 2030, and the UK, through strategies such as Maritime 2050 and the Technology and Innovation in UK Maritime route map, is hoping to achieve a 10% market share¹. At present, MASS are only able to operate in UK waters or sail under the UK flag by way of exemptions, exceptions, and equivalences to existing regulations such as the Merchant Shipping (Load Line) Regulations 1998 exemptions granted by the Maritime Coastguard Agency. Before entering UK waters or sailing under the UK flag, operators have to navigate a convoluted process, including, proving their safety case, obtaining exemptions from applicable national and international maritime safety requirements for each voyage as well as obtaining permissions from local port and/or harbour masters, arranging for a manned escort vessel or issuing a Notice to Mariners and liaising closely with classification societies and insurers. The response to the consultation proposes to simplify matters by amending the current primary legislation framework such as the Merchant Shipping Act 1995 (“MSA”), Harbours Act 1964 and Aviation and Maritime Security Act 1990 to regulate, regardless of size, for all UK flagged MASS and all MASS operating in UK waters (including craft that would not traditionally be considered ships).

Response to Consultation

Following the consultation, which closed in November 2021², the UK Department of Transport has published its Maritime Autonomy and Remote Operations consultation response and final impact assessment³. These rejected proposals to continue with exemptions, exceptions, and equivalences and to wait for the International Maritime Organisation (“IMO”) to produce new regulations for MASS, something that is not expected from the IMO before 2028 (at least on a mandatory basis). Instead, the UK intends to amend the current framework in primary legislation and in order to do so has recommended the adoption of the following broad MASS related definitions, which it hopes will allow the UK government to create a comprehensive regulatory framework whilst retaining flexibility to regulate MASS as the industry grows⁴:

- **Maritime Autonomous Surface Ships or MASS** will include “*every description of vessel or craft used in navigation that can for any part of its voyage, fully or in part, navigate or operate autonomously or through remote operations.*” and will extend to very small craft not currently considered to be ships under existing legislation⁵, although the exact definition, which is likely to be broad and flexible in order to accommodate international developments, is still to be determined by the UK government. The consultation outcomes have indicated that the

definition of MASS is unlikely to be based on the degrees or types of autonomy favoured by the IMO but will include:

1. Remotely operated ships that have no persons on board;
 2. Remotely operated ships that may have persons on board;
 3. Ships operating fully autonomously.
- **Remote Operations** will mean “*controlling the functioning of an operation on a MASS from a different location from that of MASS*”.
 - **MASS master** will include “*a person (except a pilot) having command or charge of a MASS*”. Unlike a conventional master, the MASS master will not need to be onboard the MASS and all references to the physical location of the master and characteristics of the vessel will be removed from legislation. However, the MASS master will continue to have overall responsibility for the vessel, crew, cargo, passengers and regulatory compliance and steps are to be taken to ensure that all responsibilities are enforceable against a MASS master that is not onboard the MASS, subject to extraterritoriality limitations. In addition to the MASS master, the consultation outcomes have indicated that an entity or person, who is based or registered in the UK, should be identified, and will be held accountable and responsible in certain circumstances including in the event of an emergency or accident, where enforcement action cannot be taken against the MASS master or in the event of corporate negligence.
 - **Remote Operator** “*includes every person, including a MASS master, who is employed or engaged in any capacity to undertake remote operations of a MASS.*” It is likely that Remote Operators will not be considered to be seafarers and will be subject to land-based health and safety at work practices but also hours of rest for watchkeeping and the safe manning of MASS.
 - **Remote Operations Centre (“ROC”)** “*is a location from which a MASS may be operated, which is not situated on board the vessel.*” The consultation had proposed the slightly different definition for an ROC of “*a place or location from where at least one Remote Operator is operating a MASS*” but the response provides no explanation for this change but does clarify that while the outcome of the consultation was that ROCs will not need to be located in the territory of the flag state, the government is considering the challenges around extraterritorial jurisdiction. It is likely that all ROCs will be subject to cyber security and other requirements.

Next step

The intention of the UK government not to wait for IMO regulations but instead to update primary legislation in order to create a regulatory framework that supports development and operation of MASS in the UK and also to address certain issues by way of secondary legislation is a proactive and welcome development. That said, the new legislation has not yet been drafted and significantly the UK government has not indicated when this new legislation will be introduced. It therefore remains to be seen whether these proposals will be consistent with those that are currently being developed by the IMO and whether they will in fact be introduced to move “intent” to “reality” in time to provide the UK with an advantage in the growing MASS sector.

¹ [Future of transport regulatory review: maritime autonomy and remote operations Final Impact Assessment](#)

² See our previous alert – [Shaping the Legislation for Autonomous Vessels in the UK](#)

³ [Future of transport regulatory review: maritime autonomy and remote operations](#)

⁴ The consultation outcome has indicated that some of these definitions may be refined to take account of the responses to the consultation.

⁵ This will not include sub-surface or submersible ships, which like manned submersibles, will be regulated separately.