

## NOTICE TO MARINERS No 14 of 2023

### Port of Southampton – Autonomous Unmanned Vessels

**NOTICE IS HEREBY GIVEN** that the owner of an autonomous unmanned vessel (AUV) or unmanned surface vessel (USV) is not permitted to enter or operate in the Port of Southampton's Statutory Harbour Authority unless the owner has first provided notice in accordance with subsection (1) and received approval of the Harbour Master to undertake the planned activity.

1. Notice must be made in writing to the Harbour Master at least 14 days before the activity is planned to commence and include full details, risk assessment and method statement including contact details, of a person who is:
  - (i) in control of the autonomous vessel; or
  - (ii) able to take control of the autonomous vessel.

The submission must include details of the qualifications of the persons who will be, at various times, considered to be the "master" of the autonomous vessel and how the vessel will comply with the requirements of the International Rules for the Prevention of Collisions at Sea (IRPCS). In particular, the operator must make it clear how the vessel and its associated control systems will comply with the IRCPS requirements to keep a proper lookout by sight and by hearing as well as by all available means appropriate in the prevailing circumstances and conditions so as to make a full appraisal of the situation and of the risk of collision.

2. The owner or operator of an AUV or USV that has had previous trials accepted may have this minimum notice period reduced provided that there are no substantial changes in risk controls or nature and area of the trials/operations proposed.
3. The Port Marine Safety Code (PMSC) requires the Harbour Authority to ensure that appropriate safety protocols are in place for all activities undertaken within the Ports Statutory Harbour Authority area. This will vary according to the craft, location and intended mission. The International Maritime Organization (IMO) has established four "degrees" to describe different classes of autonomy. These are as follows:

**Degree One:** Ship with automated processes and decision support: Seafarers are on board to operate and control shipboard systems and functions. Some operations may be automated and at times be unsupervised but with seafarers on board ready to take control.

**Degree Two:** Remotely controlled ship with seafarers on board: The ship is controlled and operated from another location. Seafarers are available on board to take control and to operate the shipboard systems and functions.

**Degree Three:** Remotely controlled ship without seafarers on board: The ship is controlled and operated from another location. There are no seafarers on board.

**Degree Four:** Fully autonomous ship: The operating system of the ship is able to make decisions and determine actions by itself.

4. In general, for the higher Degrees of autonomy, more robust risk assessments and associated control measures will be required to satisfy the Harbour Master that safety risks to other water users as well as to personnel involved in the trials/operations are mitigated to an agreed As Low As Reasonably Practicable (ALARP) level.
5. The level of detail in risk assessments and method statements required to achieve approval for operations will depend on the following factors:
  - Degree of autonomous operations proposed.
  - Whether surface, sub-surface or both.
  - Anticipated traffic density in proposed trials/operating area.
  - Size, speed and mass of autonomous vessel(s) involved to enable an assessment of the level of risk to other vessels.
  - Ability to fully comply with the IRPCS in the area proposed for trials/operations.
  - Guard vessel deployment and control capability (for Degree Two and above).
  - Technology Readiness Level (TRL) to enable an assessment of the trial/operation's development level and likely reliability of responses.

All of the above must be made clear in the documentation supplied, together with a clear statement of how the platform will be controlled, for each stage of the proposed activity including non-trials transits, and a clear description of all acronyms used.

For any owners or operators wanting to gain permission to enter or operate an AUV or USV within the Port of Southampton's Statutory Harbour Authority please contact the HM department on [HMSouthampton@abports.co.uk](mailto:HMSouthampton@abports.co.uk). From April 2023, ABP Southampton will be moving over to an automated system to eliminate the need for separate forms. More information will be released nearer the time.

**Vessel Traffic Services Centre  
Ocean Dock, Atlantic Way  
Southampton**

**Steven Masters  
Harbour Master**

**01<sup>st</sup> January 2023**

**Owners, Agents, Charterers, Marinas, Yacht Clubs and Recreational Sailing Organisations should ensure that the contents of this Notice are made known to the masters or persons in charge of their vessels or craft.**