

EMPA RECOMMENDATION ON SIMULATION FOR TRAINING AND PORT DEVELOPMENT

Introduction

Simulators are widely and effectively used for training throughout the maritime industry and all stages of training of ship Officers, ship Captains, and Pilots.

Simulators are very effective for training on bridge procedures, emergency manoeuvres, and international collision prevention regulations; they can also be used to teach ship-handling theory.

Simulators fail to provide a “real-world feel” and incorporate the Human Element to properly assess an individual's capabilities for ship handling. However, manned model training has proved an effective tool for teaching ship handling.

Simulators are widely used to great effect when developing new ports and berths. This development must be conducted within PIANC guidelines.

To prevent maritime accidents caused by human error, it is crucial to establish a comprehensive training program that includes simulation, manned model training, and on-site training by experienced pilots. It is imperative to guarantee that Pilots possess the highest level of proficiency and competence in handling vessels, ensuring the safety and efficiency of ports and supply chains.

Consideration

Taking into account:

- The wide use of simulators in training.
- The role simulators play in developing ports.
- The ever-increasing ship sizes that Pilots are faced with manoeuvring within established ports.
- The human element in ship handling.
- BRM-P is an essential factor in proficient and safe Pilotage.

Policy

- The role of EMPA is to facilitate the exchange of information between its members to continuously improve the professional and technical proficiency of Maritime Pilots in its Member Associations, Pilots within the EU, and in neighbouring countries.
- EMPA aims to assure the safety of all Maritime Pilots in the EU and neighbouring countries by increasing the safety and efficiency of navigation, thereby enhancing environmental protection from ship-borne pollutants.
- EMPA strongly defends and advocates that Pilotage is an essential and unique service to the shipping industry that can only be performed in an environment free from competition.
- EMPA aims to work at the forefront of our profession and collaborate with all stakeholders.
- EMPA recommendations offer practical advice, drawing from its members' collective knowledge and experience, to be read in addition to local, national, and international regulations. These recommendations inform Pilots, shipowners, and Captains, advising stakeholders that directly or indirectly impact the maritime industry.
- EMPA recommendations should be read in conjunction with equipment instructions and manuals. These recommendations are to support training, not replace training and are not to be interpreted as conflicting with local, national, or international regulations.

EMPA Recommends:

- Simulators are excellent tools for training but are limited by the fact that they fail to simulate real-world pressures of ship handling.
- Simulators should be used as part of a training programme for Pilots. PPU software that is used locally should be incorporated into simulator training programmes.
- While simulators can aid in evaluating the possibility of expanding ship sizes for ports, they must not be relied upon exclusively for assessment.
- The accuracy of simulators in emulating local tide and wind anomalies is a topic of concern. The knowledge and proficiency of experienced



pilots in this regard remain unparalleled. Therefore, it is imperative to incorporate this practical experience and local expertise when assessing the validity of simulations. This will ensure that the results obtained from such simulations are reliable and accurately reflect the real-world conditions.

- In determining the feasibility of larger ship sizes, a thorough study should be undertaken on-site in consultation with the Pilots as well as in a simulator.
- When considering increasing ship sizes in a port, tug skippers and Pilots should collaborate on simulators to determine feasibility.
- Existing port parameters and PIANC guidelines should be considered when increasing ship sizes in a port.
- In developing new ports or berths, simulators can be helpful when determining port feasibility and berth alignment. However, new ports and berths should be designed within PIANC guidelines.
- Simulators can never be considered an adequate substitute for real-world training.

Rev 12/05

Revised EMPA GM Antwerp 05/2024