



43rd International Marine Simulator Forum Annual General Meeting, Iława, Poland



ABOUT THE IŁAWA SHIP HANDLING RESEARCH AND TRAINING CENTRE

Training in ship handling

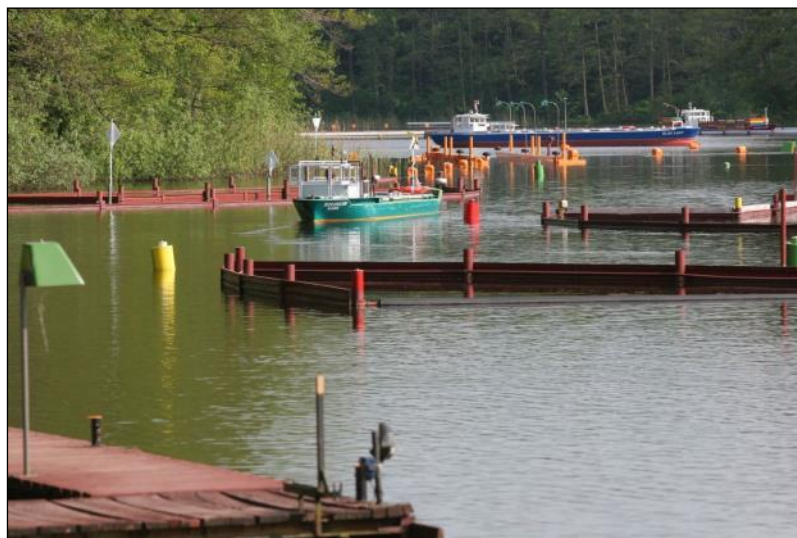
Since 1980 more than 4500 ship masters and pilots from 50 countries have been trained at the Iława Ship Handling Centre, which is owned by the Foundation for Safety of Navigation and Environment Protection. The Foundation, being a non-profit organisation, reinvests all spare funds in new facilities and adds new models, equipment and new training areas to the existing ones. The current training models and constructions are also updated every year, making the centre a modern facility perfectly capable of providing sophisticated training in ship handling for shipmasters, pilots and tug masters.

Currently the centre has nine manned models, representing a wide spectrum of ship types, equipped with all necessary devices to simulate various ships systems and basic navigational aids (gyro, log, GPS, navigational lights, wind velocity and direction indicators, etc.). The largest manned model has a length of approx. 17 m (ULCS) and 25 tons of displacement (VLCC)..

The models, which represent ships requiring tug assistance when approaching harbours, are equipped with a system that simulates the ship under the control of tugs.

A few years ago two manned models of large tugs were built. This has made it possible to increase the realism of harbour manoeuvres.

The training areas consist of mock-ups of harbours with different configurations of entrances and different water depths. Turning areas and buoyed waterways modelling the harbour approaches are equipped with a set of navigational lights for night time exercises.



The training area representing a river.

The river training area is equipped with a number of current generators and consists of a curvilinear waterway 2.0 Nm in length and restricted on both sides. Piers for berthing the

ship models in current are also located there, making the area suitable to practice and learn all manoeuvres typical for current navigation. Max. current velocity is about 4 knots.



Mock-up of a shallow water curvilinear canal

The confined waters training areas are completed by two shallow water canals: a curvilinear narrow canal with bends and straight sections, 2 Nm in length, and a much wider straight-line canal, 1.5 Nm in length, with a provision for creating a uniform current. These canals are mainly used for passing and overtaking manoeuvres as well as for various berthing procedures.

The open sea training area situated in deep water is equipped with special facilities like SBM, FPSO and CBM mock-ups, widely used for offshore manoeuvring training, while training can also be given in Ship-To-Ship manoeuvres.



*The training model representing a twin CPP ferry.
Out-of-window view and control desk located in the wheelhouse.*

The scope of the lectures and practical exercises programme is flexible. The programme of exercises can be adjusted and specific situations can be arranged by constructing special mock-ups of any harbour structure, lock or other area at the request of trainees. Of course the Training Centre should be informed of such individual needs before the start of the training. All small changes in the configuration of the training areas that can be made at no great expense are free of charge, however the trainees (or the company in question) will be charged additionally for the construction of more complicated mock-ups.



A ULCS cooperating with a tug during harbour manoeuvres.

In advanced training and in specific specialized courses the model of an FPSO unit and the manned model of a large escort ASD tug are used. For harbour manoeuvres another manned model of a large tractor tug is also available.



The manned model of an escort tug during a berthing manoeuvre



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Research in ship manoeuvrability

Every year a few research programmes are performed. Research mainly concerns problems of safety of navigation: determining the characteristics of manoeuvrability,, analysis of the causes of collisions at sea and other waterways, checking the configuration of new harbour basins and different other terminals.