



WARSASH MARITIME ACADEMY

PILOTS COMBINED BRIDGE SIMULATOR AND MANNED MODEL SHIPHANDLING COURSE JOINING INFORMATION

Course and Joining Information

PILOTS COMBINED BRIDGE SIMULATOR AND MANNED MODEL SHIPHANDLING COURSE

Duration 36 hours

**IMPORTANT:
You must bring a photo ID**

MANNED MODEL SHIPHANDLING COURSE

This booklet contains:

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- **Directions to the Manned Model Facility**

Joining Information:

Manned Model Shiphandling Course

Location:

Marchwood

Start Time:

0830 on Day 1

Course Administrator:

Jackie Basford, +44 (0)1489 556163

Marchwood Manned Model Facility

+44 (0)2380 871069

Attendance:

Students are requested to report to the relevant classroom in plenty of time. For successful completion 100% attendance is required.

Clothing/Special Requirements:

No special requirements although it is recommended that students bring sunglasses and hats. Personal protective equipment, warm clothing and foul weather gear are all supplied as part of the course.

Refreshments:

Lunch, morning coffee and afternoon tea are provided in the course fee.

Car Parking:

Limited free on-site car parking is available. *Warsash Mairtime Academy accepts no responsibility for loss from, or damage to, vehicles parked on the site.*

Local Amenities:

Marchwood village is ½ a mile away and has a cash point, shops and a number of pubs. The nearest banks are in Totton. (4 miles)

Course Prerequisites:

Participants should bring details of their Licence, Certificate of Competency or Passport. These are required for registration purposes and for inclusion in the individual course certificates, which will be issued at the end of the course.

Course Structure

The course is comprised of two modules:-

Module 1: Manned Model Shiphandling

Module 2: Ship's Bridge Simulator

Pilots have the opportunity to develop their existing skills and understanding of the behaviour and handling of ships using the centre's fleet of Manned Ship Models. This is followed by a series of sessions in the Full Mission Ship's Bridge Simulator with agreed objectives, examples of which might be specific environmental conditions or dealing with emergencies.

Course Objectives

The course aim will be achieved by addressing objectives which can include, but are not limited to, the following subject areas :-

- Revision of principles of shiphandling
- Further enhancement of shiphandling skills
- Practice Pilotage techniques in a variety of environmental conditions and port situations.

Further Objectives

Further objectives appropriate to the special situations of the Pilots attending will be defined at the start of the course in consultation with them.

Workshop Sessions

Workshop sessions are timetabled in to the schedule. Consultation with the Pilots and consideration of relevant and typical ship handling objectives will assist in determining their content. They may include, but not limited to, elements taken from the following list, which in itself is not exhaustive. Indeed subsequent workshops and exercises may address a combination of subjects, for example, complex berthing operations in conditions of wind and current.

- Revision of principles
- Local scenario berthing/un-berthing operations
- Turning
- Channel Work
- Varying environmental conditions - visibility, day/night, wind current
- Thrusters
- Tug use Berthing - Escort
- Anchor Work
- Interaction
- Rudders and propulsion systems
- Twin screw
- SBM Operations
- CBM Operations
- STS Operations
- FSU Operations

And where appropriate :-

- Port Marine Safety Code
- Pilot / master relationship
- Port passage planning

Further objectives appropriate to the special situations of the Pilots attending will be defined at the start of the course in consultation with them.

The Manned Model Ships

“Diligence” :	A general purpose vessel of	40,000 dwt
“Progress” :	A panamax vessel of	60,000 dwt
“Endeavour” :	A twin screw shuttle tanker	147,000 dwt
“Endurance” :	A capesize vessel of	150,000 dwt
“Pioneer” :	A VLCC of	210,000 dwt
“Venture” :	A VLCC of	300,000 dwt
“Challenger” :	A Twin screw ro-ro vessel of	27,000 grt

The Simulator Ships

The mathematical models used in the Bridge Simulator have been tested and verified to ensure that their performance is realistic and is comparable to that of the real ships they replicate. They comprise a wide variety of vessels ranging from a coaster of 55m loa at 3.5m draft, to container vessels, LPGs, general cargo, bulkers, warships and passenger vessels through to a series of VLCCs.

Training Area

A generic area has been especially devised in order that the course aims of the simulation module can be satisfactorily achieved. It can rapidly be adjusted to suit a Pilot's specific requirements and is easy to learn. Being unknown to the Pilots, it eliminates any preconceptions which may be assumed from a known area and therefore ensures that best practice is employed.

Course Outline:

Manned Models are a form of simulation and, as such, are subject to some limitations and differences compared with a real ship, which have to be taken into consideration :-

Time

Due to the scaling factor, ship handling manoeuvres are carried out in a shorter timescale than the real ship (or a real time ship simulator). This permits each participant on the course to conduct a large number of individual berthing and channel manoeuvres, including re-runs when difficulty has been experienced.

It also means that an individual has to think very quickly and thus the concentration and observation that is important to the ship handler is emphasised.

Speed

The scale of the model also means that speed is low in real terms. The scaling factor is the square root of the scale. Therefore on a 1:25 scale model the scaling factor is 5, so if one is doing 1 knot in the model, this equates to 5 knots on the real ship. Therefore, if approaching the berth with 0.5 mile to run making good 1.5 knots, this will equate to 7.5 knots on the real ship, much too fast !In fact an approach speed at this type of distance needs to be down to 0.1 - 0.2 knots equating to 0.5 - 1.0 knot on the real ship. It is therefore quite normal for course participants to experience problems on the first day in adjusting to this low scale speed. These problems, however, are overcome relatively quickly as excessive approach speeds are very obvious and the results are often spectacular !

Distance

The need to estimate distance is a fundamental factor in establishing correct approach speed, and can be aided by using "ships lengths" as a yardstick. At the pre exercise brief, the candidate will be given a chart of the lake with the course and an indication of distance to run marked up.

Wind

The wind cannot be scaled, but the lake has been laid out to give optimum berth and channel protection from various wind directions. Even in gale conditions areas of calm can be found behind screens of trees and hedging, where useful exercises can be conducted. The effect of wind on a ship is an integral objective of a shiphandling course and it is not advantageous to work exclusively in calm conditions. Every effort is made however, to start with basic manoeuvres in sheltered waters. As individual participants progress they will be subjected to stronger winds to concentrate on specific objectives in this subject area. Instructors will endeavour to conduct shiphandling operations in the most appropriate scaled wind conditions for a particular objective.

Briefings /Debriefings

All participants will be fully briefed by their instructor before each exercise commences to enable them to formulate an exercise plan. Once an exercise is underway the instructor remains on the jetty (or in an accompanying launch) and does not intercede unless absolutely necessary. This is to avoid breaking the concentration required during the exercise and allows participants to learn, if necessary, by observing the results of his actions. When the exercise is completed, a comprehensive debriefing is conducted on the quayside to discuss the results. Such debriefs are considered to be a most important part of the course.

Staff

The instructors are all either practising pilots, ex pilots or senior mariners who return frequently to pilotage districts and/or sea for updating experience. Many lecture on other courses within the Simulation Section, utilising ships bridge and/or radar simulators. They have amongst them wide experience of maritime training and knowledge of a variety of ship types and marine operations.

The course is, by its nature, generally relaxed, informal and enjoyable as well as instructive. It is hoped that even the most experienced ship handler will find that the week has been usefull in improving his knowledge of a highly skilled and necessary professional task.

Course Assessment:

Upon satisfactory completion of the course, participants will be awarded a 'Manned Model Shiphandling' certificate of attendance.

The course content, lectures and any advice given is without prejudice and for guidance only.

Course Timetable:

(all times are approximate)

Sunday	Arrive Hotel	
Monday	0815-0830	Taxi to Lake
	0830-0915	Registration and Introduction Discussion of course content.
	0915-1130	Familiarisation with Manned Models
	1130-1300	Workshop - "Revision of Principles"
	1300-1345	Lunch
	1345-1715	Manned Model Exercises
	1715-1730	Taxi to Hotel
Tuesday	0815-0830	Taxi to Lake
	0830-0915	Define Course Objectives
	0915 -1300	Manned Model Exercises
	1300-1345	Lunch
	1345-1430	Workshop
	1430-1715	Manned Model Exercises
	1715-1730	Taxi to Hotel
Wednesday	0815-0830	Taxi to Lake
	0830-0915	Workshop
	0915-1300	Manned Model Exercises
	1300-1345	Lunch
	1345-1715	Manned Model Exercises
	1715-1730	Taxi to Hotel
Thursday	0830	Arrive Warsash Full Mission Bridge Simulator
	0830-1300	Simulator introduction and familiarisation
	1300-1345	Lunch
	1345-1715	Simulator Exercises
	1715-1730	Taxi to Hotel
Friday	0815-0830	Taxi to Warsash
	0830-1300	Simulator Exercises
	1300-1345	Lunch
	1345-1645	Simulator Exercises
	1645-1715	Full course debrief
	1715	End of course. Taxi as required.

Accommodation:

We would normally use the Crown Hotel at Lyndhurst for students which is approximately seven miles from the Marchwood site. Alternative hotel accommodation is available by arrangement.

You will be asked to settle your hotel bill on departure, unless advised differently by your company.

Lunch is provided Monday to Thursday and is usually taken at a local restaurant. The cost is included in the course fee.

Daily Travelling Arrangements

Arrangements will be made for taxis to collect and return participants to their hotel each day.

Taxi pick-up times are in accordance with the course timetable.

Directions to the Manned Model Facility at Marchwood:

Travelling Information

These Instructions contain information for travelling to the training facility at Marchwood.

Warsash Maritime Academy at Marchwood

Address:

Warsash Maritime Academy - Southampton Solent University
Central Crescent
Marchwood Industrial Park
Marchwood
Southampton
Hampshire SO40 4BX
UK

By Taxi:

By prior arrangement, taxis can be arranged to meet course delegates from airports and railway stations. Please contact our Course Administrator for more details.

By Road:

Exit the M27 at junction 3 and take the M271 south towards Southampton until it ends at a roundabout. Take the 3rd exit and join the A35 towards Lyndhurst. Follow this road over a flyover until you reach another roundabout. Take the first exit left onto the A326 towards Hythe and Fawley.

At the first set of traffic lights, turn left into Jacobs Gutter Lane. Follow this road until you come to a roundabout. Turn left here and then, after a short distance turn left into the Marchwood Industrial Park. After following the entrance road for ½ mile turn right. Then either take the 2nd turning for the Manned Models or the 3rd turning for the Ship's Bridge Simulator.

By Air:

From Heathrow: From terminal 4 take the Southwest Trains coach link to Woking and travel by rail from Woking to Southampton Central taking approximately 2hours. Then see 'By rail'.

From Gatwick: Take a train to Southampton Central. Then see 'By rail'.

Other airports serving the area include Southampton International Airport (Airport Parkway station) and Bournemouth International Airport, both serving a number of European cities.

By Coach:

National Express operate a direct coach service from The Central Bus Station close to Terminal 1, Heathrow to Southampton approximately every two hours with a journey time of approximately 1 hour 45 minutes. Taxis to Marchwood are available from outside the Southampton Coach Station.

For more information telephone 08705 808080 or visit www.gobycoach.com.

By Rail:

The easiest way to get to the Marchwood site is via taxi from Southampton Central station. Please pre arrange your taxi via our Course Administrator.

Alternatively:

Nearest station to the Marchwood site is Totton. This is a small-unmanned station available via connection from Southampton Central. There is no taxi rank at Totton station so pre-booking is required.

For train times and information please telephone National Rail Enquiries on 08457 48 49 50 or visit www.rail.co.uk.



