



WARSASH MARITIME ACADEMY

MANNED MODEL SHIPHANDLING COURSE JOINING INFORMATION

Course and Joining Information

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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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 Approvals:

This five day non-mandatory course is recognised by the M.C.A. (an Executive Agency of the Department for Transport) and meets the principles laid down in section A-II/2 and B-V/a of STCW 95 as amended, regarding the training for Masters and Chief Officers of large ships.

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 Aims

To enable Pilots, Masters and Officers to develop their existing skills and understanding of the behaviour and handling of ships with a special emphasis on slow speed control.

This aim will be achieved through a concentrated period of practical exercises in the Manned Models, supported by a series of lectures.

Course Objectives

By the end of the course the following practical aspects of shiphandling will have been addressed.

a) Stopping and Slow Speed Control

- (i) Slow speed transit of buoyed channels
- (ii) Maintaining position on leads at slow speed
- (iii) Reducing speed under control to maintain the correct line of approach to a berth
- (iv)** Transit of a bridge structure

b) Turning Manoeuvres

- (i) Turning onto leading marks
- (ii) Turning into a buoyed channel
- (iii) Negotiating critical turns in a buoyed channel
- (iv) Turning short round
- (v) The effect of shallow water on a turn

c) Berthing Manoeuvres

- (i) Selected berthing manoeuvres to facilitate individual developments throughout the course
- (ii) Entering an enclosed dock or lock

- d) Unberthing Manoeuvres
 - (i) The use of springs to aid departure
 - (ii)** The use of the wedge effect to aid departure

- e) The Effect of Wind upon Shiphandling
 - (i) The natural lay when stopped
 - (ii) The effect of wind when moving ahead
 - (iii) The effect of wind when making sternway
 - (iv)** Berthing and unberthing in a variety of wind conditions

- f) The Effect of Trim upon Shiphandling
 - (i) The effect of wind with change of trim
 - (ii)** The effect of squat/trim in shallow water

- g) Anchorwork
 - (i) Shiphandling limitations due to inadequate windless design
 - (ii) The safety parameters that must be maintained to enable the effective use of anchors
 - (iii) Dredging two anchors to aid berthing
 - (iv) Dredging one anchor to aid berthing or swinging
 - (v)** Laying an anchor to aid berthing and departure

- h) Interaction
 - (i) Passing in a canal
 - (ii) Overtaking in a canal
 - (iii) The effect of close proximity of banks and shallows
 - (iv) The effect of shallow water and banks during berthing

Optional Objectives

The optional objectives are available to meet the many demands of individual participants and the course will be adjusted accordingly.

These optional objectives may include the following:

- a) Bow thruster operations
 - (i) Thruster design and effectiveness
 - (ii) The effect of headway and sternway upon thruster efficiency
 - (iii)** The development of lateral motion with a thruster and its significance during port or starboard berthings.
- b) Approaching and leaving a single buoy mooring (SBM)
- c) Approaching and leaving a conventional buoy mooring (CBM)
- d) Lightering operations
- e) Approaching and leaving a floating storage unit (FSU)
- f) The use of tugs
- g) Twin screw manoeuvring.

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
	0915-1130	Familiarisation with Manned Models
	1130-1300	Lecture - "Stopping"
	1300-1345	Lunch
	1345-1715	Manned Model Exercises
	1715-1730	Taxi to Hotel
Tuesday	0815-0830	Taxi to Lake
	0830-1000	Lecture - "Turning"
	1000-1300	Manned Model Exercises
	1300-1345	Lunch
	1345-1430	Lecture "Effect of Wind"
	1430-1715	Manned Model Exercises
	1715-1730	Taxi to Hotel
Wednesday	0815-0830	Taxi to Lake
	0830-0930	Lecture - "Anchorwork"
	0930-1300	Manned Model Exercises
	1300-1345	Lunch
	1345-1415	Lecture "Optional Objectives"
	1415-1715	Manned Model Exercises
	1715-1730	Taxi to Hotel
Thursday	0815-0830	Taxi to Lake
	0830-0930	Lecture - "Interaction"
	0930-1300	Manned Model Exercises
	1300-1345	Lunch
	1345-1415	Lecture "Optional Objectives"
	1415-1715	Manned Model Exercises
	1715-1730	Taxi to Hotel
Friday	0815-0830	Taxi to Lake
	0830-1200	Manned Model Exercises
	1200-1215	Course debrief
	1215	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.

