

c PILOTAGE

The guidance in this Chapter on Pilotage should be read in conjunction with the guidance on effective Bridge Team organisation in Chapter 1 and passage planning in Chapter 2 of this Guide.

5.1 OVERVIEW

Effective co-ordination between the Master, other members of the Bridge Team and the Pilot is a prerequisite for safe pilotage.

Pilots possess particular local knowledge and have ship handling and tug management skills to assist the Bridge Team during the most critical and potentially hazardous phases of a voyage.

If a ship's officer holds a valid Pilotage Exemption Certificate (PEC) issued by the responsible authority, it may not be necessary to engage a pilot when the ship is in pilotage waters. In certain circumstances, remote pilotage services may be provided by a shore-based pilot.

Efficient pilotage will depend on:

- Effective communication between the Master, Bridge Team and Pilot;
- Accurate exchange of information between the Master, Bridge Team and the Pilot, particularly on matters relating to safety, helm and telegraph orders;
- Mutual understanding of duties and responsibilities; and
- A complete awareness and understanding of the ship's systems, equipment and any deficiencies which may affect handling characteristics and manoeuvrability.

As appropriate, ship's personnel, shore-based ship management and pilots should be trained in or be familiar with and practise Bridge Resource Management (see Section 1.2).

The presence of a Pilot does not relieve the Master or the Bridge Team from their duties and responsibilities for the safe conduct of the ship.

5.2 PREPARATION FOR PILOTAGE

5.2.1 THE PILOTAGE PLAN

Appraisal and planning of a berth to berth passage plan should include the completion and approval by the Master of a pilotage plan (see Section 2.4). The pilotage plan may not be complete until after the Master/Pilot information exchange (MPX) has taken place. The Master should be prepared to agree amendments to the pilotage plan as necessary.

The appraisal and planning process is not a substitute for a full MPX (see Checklist A1), covering the most up to date information available when the Pilot embarks.

Particular information may be required by port authorities in advance of arrival. The Master should be prepared to provide:

- Any of the ship particulars in Checklist A1 and A2;
- Declarations relating to cargo, stores, crew, passengers and dangerous goods;
- Arrival intentions including arrangements for cargo discharge and bunkering; and

Any other information requested by port authorities.

5.2.2 THE PILOT

The Master should expect the Pilot(s) to be qualified, certified and experienced for the intended pilotage and adequately rested and alert. The Master has a right to request a replacement Pilot should it be deemed necessary.

Masters should be aware that a Pilot may refuse to conduct a pilotage if it is considered that the ship may be a danger to the safety of navigation or to the environment. In the event of a refusal to conduct a pilotage the Pilot may be expected to report the reason to the appropriate authority for further action.

The Master should understand that the Pilot should report, without delay, to the appropriate authority:

- Any circumstance that may affect the safety of navigation or compromise the prevention of pollution;
- Any accident or near miss which may have occurred during the pilotage; and
- Any irregularities with navigational lights, shapes and signals on board.

5.2.3 THE SHIP AND BRIDGE TEAM

The following preparations for pilotage will enable the Bridge Team to utilise effectively the Pilot's particular skills, knowledge and experience:

- A pilotage plan (see Section 2.4.3);
- The Bridge Team should be briefed regarding the pilotage and the duties of those involved;
- The Pilot Card (see Checklist A2) should be completed; and
- Communications should be established with Pilot, port VTS and port authorities as appropriate.

5.2.4 THE PILOT CARD

The Pilot Card should be updated to include all details of the current ship condition and all relevant information for that particular passage/port. It is important that all defects which may affect the ship's manoeuvrability or have an impact on the pilotage are recorded, and that a procedure for unambiguously advising any such defects to the Pilot is followed.

It is recommended that the Pilot Card is prepared in accordance with the IMO standard format (see Checklist A2).

5.3 SAFE PILOT BOARDING

5.3.1 PILOT BOARDING TIME

To allow sufficient time for a comprehensive MPX, the ship should ensure that it is available to embark the Pilot at the agreed embarkation time. Any delays in embarkation may reduce the time available for a comprehensive MPX and to make and agree any necessary amendments to the pilotage plan.

5.3.2 EMBARKING THE PILOT

The Master should ensure the availability of a properly maintained means of pilot embarkation and disembarkation that is positioned, rigged, checked and manned in accordance with IMO recommendations (see Checklist A4) and, where applicable, local requirements. If embarking a pilot by helicopter, reference should be made to the *ICS Guide to Helicopter/Ship Operations*.

The Pilot should:

- Use appropriate personal protective equipment; and
- Liaise with the Master so that the ship is positioned and manoeuvred to permit safe boarding.

The Pilot may be expected to check that boarding equipment appears properly rigged and manned.

5.4 MASTER/PILOT INFORMATION EXCHANGE

The Pilot and the Master should exchange information regarding the Pilot's intentions, the ship's characteristics and operational factors as soon as practicable after the Pilot has boarded the ship.

For an effective Master/Pilot information exchange (MPX), use should be made of the MPX checklist (see Checklist A1). It is essential that the MPX results in clear and effective communication and should cover:

- Presentation of a completed standard Pilot Card (see Checklist A2);
- The pilotage plan and the circumstances when deviation from the plan may be required. Any amendments to the plan should be agreed, and any changes in individual Bridge Team responsibilities made, before pilotage commences;
- Updates on local conditions such as weather, depth of water, tides and tidal streams;
- An update on traffic conditions;
- Ship's dimensions and manoeuvring information should be provided in the form of the Wheelhouse Poster (see Checklist A3). A manoeuvring booklet containing more detailed information should also be available on the bridge;
- Any unusual ship handling characteristics and machinery, navigational equipment and crew limitations that could affect the safe conduct of pilotage and berthing;
- Information on berthing arrangements including the use, characteristics and number of tugs, mooring boats, mooring arrangements and other external facilities;
- Contingency plans should also be considered. These should identify possible abort points in the event of a malfunction or a shipboard emergency; and
- Formal confirmation of the working language.

All defects that might affect the manoeuvrability of the vessel or the pilotage should be reported to the Pilot.

There will be circumstances when a debriefing with the Pilot after pilotage could identify improvements in the conduct of future pilotage operations by the Bridge Team.

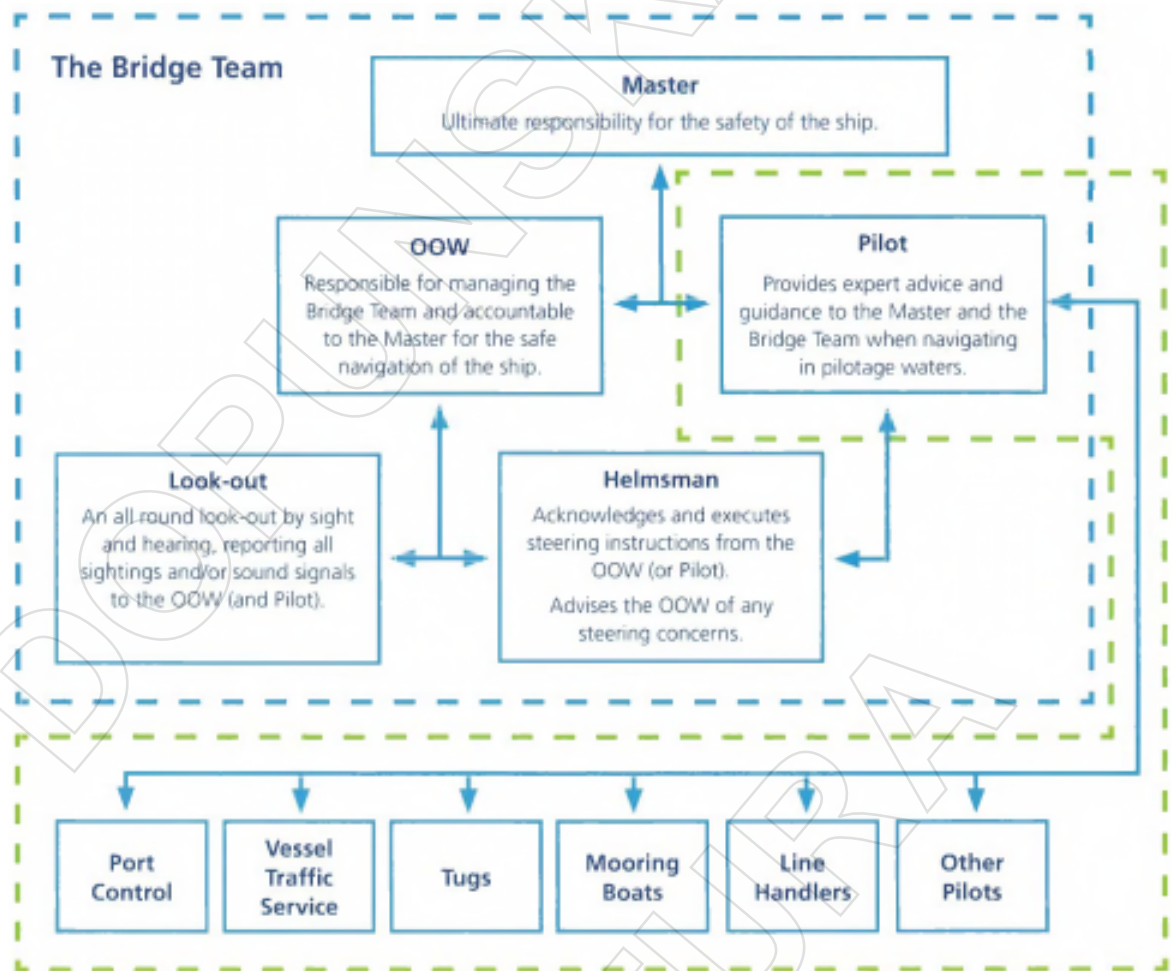
5.4.1 ADDITIONAL PILOTS

If more than one pilot is required or supernumerary pilots board:

- All pilots should be involved in the MPX; and
- Each pilot's role and responsibility, including duty periods, should be understood by the entire Bridge Team.

5.5 DUTIES AND RESPONSIBILITIES

The Master has ultimate responsibility for the safety of the ship and prevention of pollution. The Bridge Team is not relieved of its responsibility for safe navigation following the embarkation of the Pilot. The following diagram illustrates an example of a Bridge Team and Pilot co-operating and working together.



The Pilot should effectively communicate expert local knowledge, information and advice to the Bridge Team in English or a defined working language that is understood by the Master, Pilot and Bridge Team. Pilots should in turn be supported by all appropriate shipboard personnel in their execution of safe navigation.

At all times it should be clearly understood by the Bridge Team, including by the Pilot, whether the Master, Pilot or OOW has control of steering and propulsion.

5.5.1 BRIDGE TEAM RESPONSIBILITIES

When deciding on the composition of the Bridge Team, consideration should be given to the need for sufficient resources to ensure that the following are effectively achieved:

- Operating navigation equipment and providing assistance and advice to the Pilot as necessary;
- Monitoring the actions of the Pilot and other members of the Bridge Team;
- Monitoring ship progress against the pilotage plan by conducting track monitoring and regular fixing of the position of the ship, particularly after each course alteration;
- Monitoring under keel clearance (UKC);
- Verifying verbal orders from the Pilot and confirming that they have been carried out correctly;

- Monitoring the rate of turn, rudder angle and RPM indicators when helm and engine orders are given;
- Identifying misunderstandings and ensuring that clarifications are sought immediately if in any doubt; and
- Advising the Master if the safety of the ship is in any doubt.

5.5.2 PILOT'S RESPONSIBILITIES

Throughout the pilotage and berthing the Pilot should:

- Use the agreed working language and if necessary the IMO Standard Marine Communication Phrases (SMCP) when directing or advising the Bridge Team;
- Understand the roles and responsibilities of individual Bridge Team members;
- Make use of the information provided during the MPX regarding manoeuvring characteristics;
- Respond to information, advice and questions from the Bridge Team;
- Advise the Bridge Team of any failures or deficiencies, such as the unavailability of tugs, in good time;
- Keep the Bridge Team apprised of pilotage progress and any anticipated need to deviate from the pilotage plan; and
- Inform the Bridge Team of any handover between pilots.

5.6 MANOEUVRING

5.6.1 MOORING OPERATIONS

The Pilot and the Master should discuss and agree the circumstances under which the Pilot may directly operate controls for key equipment (such as main engine, helm and thrusters). The Master should bear in mind that the Pilot may not be familiar with the propulsion system on board, or its characteristics and methods of operation. If there is any doubt then the Master or OOW should control these systems.

The Pilot should co-ordinate the work of the Bridge Team, tugs, mooring boats and linesmen during mooring operations. The Pilot's intentions and actions should be explained to the Bridge Team in the defined working language.

In supporting the Pilot, the Master and Bridge Team should:

- Ensure that the Pilot's directions are conveyed to the mooring stations and are correctly implemented;
- Ensure that the mooring stations provide relevant feedback information; and
- Advise the Pilot once directions have been complied with, or where an omission has occurred or if a potential problem exists.

5.6.2 USE OF TUGS AND MOORING BOATS

The number of tugs, how they will operate (on a line or alongside), their capabilities and their limitations should form part of the MPX and be understood by the Bridge Team. It is important that when used, the size and power of tugs is appropriate for the size of the ship.

Communications between the Pilot, tugs and mooring boats should be monitored and verified. The Pilot should keep the Bridge Team informed about the orders given to tugs and mooring boats. Any concerns should be reported to the Master and Pilot.

Care should be taken when operating with tugs and mooring boats to ensure that they are not endangered by the actions of the ship. This is also important when making fast or letting go tugs.

The Bridge Team should be aware of the effects of interaction between ships, tugs and/or mooring boats and fixed structures.

5.7 PREPARING THE OUTBOUND PILOTAGE PLAN

After berthing, the outbound pilotage plan may be discussed with the Pilot to support the appraisal and planning stages of the passage plan. Notwithstanding this, a complete MPX should be take place before departure.

5.8 PILOTAGE EXEMPTION CERTIFICATES

Where pilotage is compulsory a ship should engage a pilot, unless there is an officer on board to whom the pilotage authority has issued a Pilotage Exemption Certificate (PEC) for the specific port or pilotage area.

A PEC holder should act as the Pilot and take on the duties and responsibilities of a pilot whilst providing local information and advice to the Master and other members of the Bridge Team.

The presence of a PEC holder on board does not prevent the Master from requesting a pilot if necessary.

5.9 DEEP SEA PILOTS

Deep sea pilots can, in appropriate circumstances, be an asset and enhance the safety of the ship during a passage. There is no mandatory requirement to use a deep sea pilot under SOLAS. There are however areas where the IMO and/or coastal State(s) recommends or strongly recommends the use of a pilot.

Companies and Masters should give due consideration to recommendations relating to the safety of navigation and should carefully consider the rationale should a deep sea pilot not be embarked in areas where they are recommended.