Estuary navigation, manoeuvring in confined waters ports or canals, demands great nautical skill. Merchant vessels with ever larger dimensions have to be safely guided through narrow waterways, often in heavy traffic. The pilot acts as the partner of the captain coping with this demanding role, which requires long experience as well as specific knowledge of the vessel and the estuary.

Within a very short period of the time pilots have to acquaint themselves with the characteristics and manoeuvring of an unfamiliar vessel, while taking weather conditions, currents and tides into account, before setting course and giving instructions to sail.
IMO RESOLUTION A.960

RECOMMENDATIONS ON TRAINING AND CERTIFICATION AND OPERATIONAL PROCEDURES FOR MARITIME PILOTS OTHER THAN DEEP-SEA PILOTS
RECOMMENDATIONS ON TRAINING AND CERTIFICATION AND
OPERATIONAL PROCEDURES FOR MARITIME PILOTS OTHER THAN
DEEP-SEA PILOTS

THE ASSEMBLY,

RECALLING Article 15(j) of the Convention on the International Maritime
Organization concerning the functions of the Assembly in relation to regulations and
guidelines concerning maritime safety and the prevention and control of marine
pollution from ships,

RECOGNIZING that maritime pilots play an important role in promoting
maritime safety and protecting the marine environment,

BELIEVING that the maintaining of a proper working relationship between
the pilot, the master and, as appropriate, the officer in charge of a navigational watch
is important in ensuring the safety of shipping,

NOTING that since each pilotage area needs highly specialized experience
and local knowledge on the part of the pilot, IMO does not intend to become involved
with either the certification or licensing of pilots or the systems of pilotage practised
in various States,

RECOGNIZING ALSO the high standards of pilotage services already
established in many States and the need for these standards to be maintained,

CONSIDERING that in those States developing pilotage services, the
establishment of practical minimum training standards, certification requirements and
operational procedures to provide effective co-ordination between pilots and ship
personnel, taking due account of ship bridge procedures and ship equipment, would
contribute to maritime safety,

HAVING CONSIDERED the recommendation made by the Maritime Safety
Committee at its seventy-fifth session,

1. ADOPTS the following Recommendations:

(a) Recommendation on training and certification of maritime pilots other
than deep-sea pilots, given in Annex 1 to the present resolution;

(b) Recommendation on operational procedures for maritime pilots other
than deep-sea pilots, given in Annex 2 to the present resolution;
2. URGES Governments to give effect to these Recommendations as soon as possible;

3. REQUESTS the Maritime Safety Committee to keep the Recommendations under review and to amend them as necessary in the light of experience gained from their implementation;

4. REVOKES resolution A.485 (XII).
ANNEX 1

RECOMMENDATION ON TRAINING AND CERTIFICATION OF MARITIME PILOTS OTHER THAN DEEP-SEA PILOTS

1 Scope

1.1 It is recognised that pilotage requires specialised knowledge and experience of a specific area and that States with many diverse waterways and ports have found it appropriate to administer pilotage on a regional or local basis.

1.2 The maritime pilots referred to in this Recommendation do not include deep-sea pilots or shipmasters or crew who are certificated or licensed to carry out pilotage duties in particular areas.

1.3 Governments should encourage the establishment or maintenance of competent pilotage authorities to administer safe and efficient pilotage systems.

2 Competent pilotage authority

2.1 Competent pilotage authority means either the national or regional Governments or local groups or organizations that by law or tradition, administer or provide a pilotage system. Governments should inform competent pilotage authorities of the provisions of this document and encourage their implementation.

2.2 The assessment of the experience, qualifications and suitability of an applicant for certification or licensing, as a pilot, is the responsibility of each competent pilotage authority.

2.3 The competent pilotage authority in co-operation with the national and local pilots’ associations should:

.1 establish the entry requirements and develop the standards for obtaining a certificate or licence in order to perform pilotage services within the area under its jurisdiction;

.2 enforce the maintenance of developed standards;

.3 specify whatever prerequisites, experience or examinations are necessary to ensure that applicants for certification or licensing as pilots are properly trained and qualified; and

.4 arrange that reports on investigations of incidents involving pilotage are taken into account in maritime pilots’ training programmes.

3 Pilotage certificate or licence

Every pilot should hold an appropriate pilotage certificate or licence issued by the competent pilotage authority. In addition to stating the pilotage area for which it is
issued, the certificate or licence should also state any requirements or local limitations that the competent pilotage authority may specify such as maximum size, draught or tonnage of vessels that the holder is qualified to pilot.

4 Medical fitness

4.1 Each pilot should satisfy the competent pilotage authority that his or her medical fitness, particularly regarding eyesight, hearing and physical fitness meets the standards required for certification of masters and officers in charge of a navigational watch under the international Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, as amended, or such other standards as the competent pilotage authority considers appropriate.

4.2 If a pilot has experienced a serious injury or illness, there should be a re-evaluation of his or her medical fitness prior to return to duty.

5 Training and certification or licensing standards

5.1 The competent pilotage authority is responsible for training and certification or licensing standards. The standards should be sufficient to enable pilots to carry out their duties safely and efficiently.

5.2 Standards for initial training should be designed to develop in the trainee pilot the skills and knowledge determined by the competent pilotage authority to be necessary for obtaining a pilot certificate or license. The training should include practical experience gained under the close supervision of experienced pilots. This practical experience gained on vessels under actual piloting conditions may be supplemented by simulation, both computer and manned model, classroom instruction, or other training methods.

5.3 Every pilot should be trained in bridge resource management with an emphasis on the exchange of information that is essential to a safe transit. This training should include a requirement for the pilot to assess particular situations and to conduct an exchange of information with the master and/or officer in charge of navigational watch. Maintaining an effective working relationship between the pilot and the bridge team in both routine and emergency conditions should be covered in training. Emergency conditions should include loss of steering, loss of propulsion, and failures of radar, vital systems and automation, in a narrow channel or fairway.

5.4 Initial and continuing training in the master-pilot information exchange should also cover:

   .1 regulatory requirements governing the exchange;

   .2 recognition of language, cultural, psychological and physiological impediments to effective communication and interaction and techniques for overcoming these impediments; and

   .3 best practices in the specific pilotage area.
5.5 Competent pilotage authorities should be encouraged to provide updating and refresher training conducted for certified or licensed pilots to ensure the continuation of their proficiency and updating of their knowledge, and could include the following:

.1 courses to improve proficiency in the English language where necessary;

.2 sessions to enhance the ability to communicate with local authorities and other vessels in the area;

.3 meetings with local authorities and other responsible agencies to envisage emergency situations and contingency plans;

.4 refresher or renewal courses in bridge resource management for pilots to facilitate communication and information exchange between the pilot and the master and to increase efficiency on the bridge.

.5 simulation exercises, which may include radar training and emergency shiphandling procedures;

.6 courses in shiphandling training centres using manned models;

.7 seminars on new bridge equipment with special regard to navigation aids;

.8 sessions to discuss relevant issues connected with the pilotage service including laws, rules and regulations particular to the pilotage area;

.9 personal safety training;

.10 techniques for personal survival at sea; and

.11 emergency first aid, including cardio-pulmonary resuscitation (CPR) and hypothermia remediation.

6 Continued proficiency

6.1 In order to ensure the continued proficiency of pilots and updating of their knowledge, the competent pilotage authority should satisfy itself, at regular intervals not exceeding five years, that all pilots under its jurisdiction:

.1 continue to possess recent navigational knowledge of the local area to which the certificate of licence applies;

.2 continue to meet the medical fitness standards of paragraph 4 above; and
6.2 Possession of knowledge required by subparagraphs 6.1.1 and 6.1.3 may be proved by an appropriate method such as personal service records, completion of continuing professional development courses or by an examination.

6.3 Where a pilot in cases of absence from duty, for whatever reason, is lacking recent experience in the pilotage area, the competent pilotage authority should satisfy itself that the pilot regains familiarity with the area on his or her return to duty.
7 Syllabus for pilotage certification or licensing

7.1 In the syllabus, area means the waters for which the applicant is to be certified or licensed. Each applicant for a pilot certificate or license should demonstrate that he or she has necessary knowledge of the following:

.1 limits of local pilotage areas;
.2 International Regulations for Preventing Collisions at Sea, 1972 as amended, and also such other national and local navigational safety and pollution prevention rules as may apply in the area;
.3 system of buoyage in the area;
.4 characteristics of the lights and their angles of visibility and the fog signals, racons and radio beacons and other electronic aids in use in the area;
.5 names, positions and characteristics of the light vessels, buoys, beacons, structures and other marks in the area;
.6 names and characteristics of the channels, shoals, headlands and points in the area;
.7 bridge and similar obstruction limitations including air draughts;
.8 depths of water throughout the area, including tidal effects and similar factors;
.9 general set, rate, rise and duration of the tides and use of the tide tables and real-time and current data systems, if available, for the area;
.10 proper courses and distances in the area;
.11 anchorages in the area;
.12 shiphandling for piloting, anchoring, berthing and unberthing, manoeuvring with and without tugs, and emergency situations;
.13 communications and availability of navigational information;
.14 systems of radio navigational warning broadcasts in the area and the type of information likely to be included;
.15 traffic separation schemes, vessel traffic services and similar vessel management systems in the area;
.16 bridge equipment and navigational aids;
use of radar and other electronic devices; their limitations and capabilities as navigation and collision avoidance aids;

manoeuvring behaviour of the types of ships expected to be piloted and the limitations imposed by particular propulsion and steering systems;

factors affecting ship performance such as wind, current, tide, channel configuration, water depth, bottom, bank and ship interaction including squat;

use and limitation of various types of tugs;

the English language to a standard adequate to enable the pilot to express communications clearly;

IMO Standard Marine Communication Phrases;

IMO Code for the investigation of marine casualties and incidents;

Master-Pilot Relationship, Pilot Card, operational procedures;

clean prevention;

emergency and contingency plans for the area;

safe embarking and disembarking procedures; and

any other relevant knowledge considered necessary.
ANNEX 2

RECOMMENDATION ON OPERATIONAL PROCEDURES FOR
MARITIME PILOTS OTHER THAN DEEP-SEA PILOTS

1 General

Efficient pilotage depends, among other things, upon the effectiveness of the communications and information exchanges between the pilot, the master and the bridge personnel and upon the mutual understanding each has for the functions and duties of the other. Establishment of effective co-ordination between the pilot, the master and the bridge personnel, taking due account of the ship’s systems and equipment available to the pilot, will aid a safe and expeditious passage.

2 Duties of master, bridge officers and pilot

2.1 Despite the duties and obligations of a pilot, the pilot’s presence on board does not relieve the master or officer in charge of the navigational watch from their duties and obligations for the safety of the ship. It is important that, upon the pilot boarding the ship and before the pilotage commences, the pilot, the master and the bridge personnel are aware of their respective roles in the safe passage of the ship.

2.2 The master, bridge officers and pilot share a responsibility for good communications and understanding of each other’s role for the safe conduct of the vessel in pilotage waters.

2.3 Masters and bridge officers have a duty to support the pilot and to ensure that his/her actions are monitored at all times.

3 Pilot boarding point

3.1 The appropriate competent pilotage authority* should establish and promulgate the location of safe pilot embarkation and disembarkation points.

3.2 The pilot boarding point should be at a sufficient distance from the commencement of the act of pilotage to allow safe boarding conditions.

3.3 The pilot boarding point should also be situated at a place allowing for sufficient time and sea room to meet the requirements of the master-pilot information exchange (see paragraphs 5.1 to 5.6).

4 Procedures for requesting pilot

4.1 The appropriate competent pilotage authority should establish, promulgate and maintain procedures for requesting a pilot for an inbound or outbound ship, or for shifting a ship.

* “Competent pilotage authority” has the same meaning as in annex 1.
4.2 As human resources and technical means have to be planned well in advance, the operation of an efficient pilotage service requires information on the Estimated Time of Arrival (ETA) or Departure (ETD) to be furnished by the ship as early as possible with frequent updates where possible.

4.3 Communication by VHF or other dedicated means should be established as soon as possible to enable the master to confirm the ship’s ETA and the Pilot Station to furnish relevant information regarding pilot boarding.

4.4 The initial ETA message to the Pilot Station should include all the information required by local regulations, including:

1. ship’s name, call sign, ship’s agent;
2. ship’s characteristics: length, beam, draught, air draught if relevant, speed, thruster(s);
3. date and time expected at the pilot boarding point;
4. destination, berth (if required, side alongside); and
5. other relevant requirements and information.

5 Master - pilot information exchange

5.1 The master and the pilot should exchange information regarding navigational procedures, local conditions and rules and the ship’s characteristics. This information exchange should be a continuous process that generally continues for the duration of the pilotage.

5.2 Each pilotage assignment should begin with an information exchange between the pilot and the master. The amount and subject matter of the information to be exchanged should be determined by the specific navigation demands of the pilotage operation. Additional information can be exchanged as the operation proceeds.

5.3 Each competent pilotage authority should develop a standard exchange of information practice, taking into account regulatory requirements and best practices in the pilotage area. Pilots should consider using an information card, form, checklist or other memory aid to ensure that essential exchange items are covered. If an information card or standard form is used by pilots locally regarding the anticipated passage, the layout of such a card or form should be easy to understand. The card or form should supplement and assist, not substitute for, the verbal information exchange.

5.4 This exchange of information should include at least:
presentation of a completed standard Pilot Card. In addition, information should be provided on rate of turn at different speeds, turning circles, stopping distances and, if available, other appropriate data;

.2 general agreement on plans and procedures, including contingency plans, for the anticipated passage;

.3 discussion of any special conditions such as weather, depth of water, tidal currents and marine traffic that may be expected during the passage;

.4 discussion of any unusual ship-handling characteristics, machinery difficulties, navigational equipment problems or crew limitations that could affect the operation, handling or safe manoeuvring of the ship;

.5 information on berthing arrangements; use, characteristics and number of tugs; mooring boats and other external facilities;

.6 information on mooring arrangements; and

.7 confirmation of the language to be used on the bridge and with external parties.

5.5 It should be clearly understood that any passage plan is a basic indication of preferred intention and both the pilot and the master should be prepared to depart from it when circumstances so dictate.

5.6 Pilots and competent pilotage authorities should be aware of the voyage planning responsibilities of masters under applicable IMO instruments*.

6 Communications language

6.1 Pilots should be familiar with the IMO Standard Marine Communication Phrases and use them in appropriate situations during radiocommunications as well as during verbal exchanges on the bridge. This will enable the master and officer in charge of the navigational watch to better understand the communications and their intent.

6.2 Communications on board between the pilot and bridge watchkeeping personnel should be conducted in the English language or in a language other than English that is common to all those involved in the operation.

* Refer to SOLAS regulation V/34 and resolution A.893(21) on Guidelines for voyage planning and STCW Code, Section A-VIII/2, Part 2
6.3 When a pilot is communicating to parties external to the ship, such as vessel traffic services, tugs or linesmen and the pilot is unable to communicate in the English language or a language that can be understood on the bridge, the pilot should, as soon as practicable, explain what was said to enable the bridge personnel to monitor any subsequent actions taken by those external parties.

7 Reporting of incidents and accidents

When performing pilotage duties, the pilot should report or cause to be reported to the appropriate authority, anything observed that may affect safety of navigation or pollution prevention. In particular, the pilot should report, as soon as practicable, any accident that may have occurred to the piloted ship and any irregularities with navigational lights, shapes and signals.

8 Refusal of pilotage services

The pilot should have the right to refuse pilotage when the ship to be piloted poses a danger to the safety of navigation or to the environment. Any such refusal, together with the reason, should be immediately reported to the appropriate authority for action as appropriate.

9 Fitness for duty

Pilots should be adequately rested and mentally alert in order to provide undivided attention to pilotage duties for the duration of the passage.

***