



SUB-COMMITTEE ON STANDARDS OF
TRAINING AND WATCHKEEPING
30th session
Agenda item 4

STW 30/4/1
24 November 1998
Original: ENGLISH

**TRAINING AND CERTIFICATION OF MARITIME PILOTS
AND REVISION OF RESOLUTION A.485(XII)**

Pilotage training programmes

Submitted by the United Kingdom

SUMMARY

- | | |
|-----------------------------------|--|
| <i>Executive summary:</i> | This document describes the benefits of using both manned models and simulators for ship handling training and updating. |
| <i>Action to be taken:</i> | Paragraph 10. |
| <i>Related documents:</i> | 1995 STCW Conference Resolution 10. |

1 Resolution 10 of the 1995 STCW Conference invited the IMO to consider developing provisions covering the training and certification of maritime pilots. The United Kingdom considers that when developing these provisions, consideration should be given to the complementary use of both manned models and simulators during training.

2 Pilotage is essentially a hands-on application of many years learning and experience and any training should reflect the strong practical bias required for any course to be effective. Accepting that pilots are already competent ship's officers, training must be an integration of theoretical and practical ship handling, training and updating.

3 The following points should be taken into consideration when developing pilotage training programmes:

- .1 classroom instruction related to ship handling on courses leading to certificates of competency is limited to theoretical explanation and there is no opportunity to put this theory into practice;
- .2 experienced mariners receive little or no ship handling updating training during their careers;
- .3 commercial interests limit the opportunity for use of real ships for practical experience and ship handling;
- .4 financial pressures militate against the use of training vessels by nautical colleges.

For reasons of economy, this document is printed in a limited number. Delegates are kindly asked to bring their copies to meetings and not to request additional copies.
--

4 As a consequence of the above, there is a worldwide training weakness in the area of ship handling as part of a mariner's career structure. There is therefore an identified need for ship handling training and updating.

5 The United Kingdom uses two methods to train mariners in ship handling, the manned model and full mission ship's bridge simulator which allow classroom theory to be put into practice in a safe environment, allowing for debriefing, discussion and re-runs of exercises.

6 Both methods have limitations and advantages which influence their use in particular circumstances.

Manned Models

7 The United Kingdom has found that manned models are effective in training mariners for reasons which include:

- .1 they are effective in training mariners in the final phase of berthing and close proximity manoeuvres. Simulators are still limited in this respect;
- .2 provided that models are accurately scaled and well built, they provide effective training in manoeuvring at all speeds and in all directions. Simulators require very accurate ship manoeuvring mathematical modeling;
- .3 in simulators, the ship handler is not in touch with the elements resulting in a lack of "feel" for the operation;
- .4 as manned models are real ships afloat, with similar hydrodynamics, the models behaviour matches the real life equivalent;
- .5 the reasons for successful and unsuccessful manoeuvres are often obvious and can be discussed immediately and exercises repeated; and
- .6 theory can be practiced immediately.

Full Mission Bridge Simulators

8 Full Mission Bridge Simulators are of benefit when the training requires the use of a full scale bridge and the illusion of a whole ship. These scenarios include:

- .1 team training including the master/pilot relationship;
- .2 emergency procedures;
- .3 blind pilotage, navigation and the execution of passage planning;
- .4 the use and control of tugs;
- .5 area familiarisation for pilots; and
- .6 anchoring in crowded or specifically designated anchorages.

9 The United Kingdom considers that these methods are complementary because they simulate different aspects of the ship handling process and go a long way to provide realistic training.

Action requested of the Sub-Committee

10 The Sub-Committee is invited to take the information in this paper into account when developing proposals for the provision of training and certification for maritime pilots.
