



WORK PROGRAMME

Sub-Committees on Safety of Navigation (NAV) and Ship Design and Equipment (DE)

Work programme item proposal – Improving the safety of pilot transfer arrangements

**Submitted by the United States, Brazil, and the
International Maritime Pilots' Association (IMPA)**

SUMMARY

Executive summary: Despite ever increasing safety efforts, pilots continue to lose their lives or suffer serious injury in the course of transferring to ships from pilot launches and cutters, using ladders. It is therefore necessary to consider amendments to the IMO instruments relating to pilot transfer arrangements.

Action to be taken: Paragraph 14

Related documents: SOLAS regulation V/23, and resolution A.889(21) on pilot transfer arrangements

Introduction

1 Maritime pilots provide world shipping with critical, independent and timely navigation services to protect vessels, their crews and the environment.

2 Whilst the provision of a pilot can sometimes be achieved by helicopter, the large majority of boarding/landing operations are carried out by launch/cutter transfer using a ladder. Sadly, despite ever increasing efforts, pilots continue to lose their lives or suffer serious injury in the course of this process. In January 2006 alone three pilots died in boarding/landing operations.

Scope of the proposal

3 The International Maritime Pilots' Association and its 50 member associations have been studying the specification of ladders for over two years now and believe amendments to existing IMO instruments could improve safety outcomes in this essential operation.

4 As a result of careful consideration, the sponsors believe that amendments to SOLAS regulation V/23 and/or resolution A.889(21) should be considered to improve the safety of pilot transfer operations using ladders. A number of specific proposals are set forth at annex.

Need or compelling need

5 As a result of continuing injuries and loss of life, the sponsors believe that there is a compelling need to improve the safety pilot transfer operations through improved operations and equipment. No additional equipment is proposed to be carried, but certain revisions to equipment design standards are believed to have the potential for significant safety benefits. No broad requirement for retrofit of existing ships is envisaged, but certain especially hazardous arrangements on existing ships should be corrected. Consequently, the sponsors believe that a significant safety benefit can be realized with minimal burden on the maritime industry.

Issues involved

6 The issues involved are the safety of pilots involved in transfer operations, and the costs to the maritime industry to implement the necessary changes. Since no new equipment carriage or broad retrofit requirements are proposed, the sponsors believe that significant safety benefits can be realized at minimal cost.

Benefits that would accrue

7 The proposed revisions are intended to significantly improve the safety of pilots involved in transfer operations.

Priority and target completion date

8 The proposal follows a series of incidents causing or indicating risk of loss of life, and significant injuries to persons. As such, a high priority is indicated (MSC/Circ.1099, paragraph 2.11.4). The sponsors believe the work can be accomplished at sub-committee level in two sessions (2008 and 2009).

Criteria for general acceptance

9 The subject is within the scope of IMO's objectives for safety of life at sea.

10 Related international industry standards include ISO 799:2004 *Ships and Marine technology - Pilot ladders*, ISO 5488:1979 *Shipbuilding – Accommodation ladders*, and draft ISO 16848 *Ships and marine technology – Pilot accommodation ladders*. Close liaison should be maintained with ISO/TC8/SC1 to determine the appropriate instruments for various provisions.

11 Anticipated benefits are the prevention of death and injury to maritime pilots. Although some urgent retrofit requirements may be considered for existing ships, most of the changes involve either operations, or the design of new equipment. The cost of equipment to new designs is not expected to be significantly higher than existing equipment complying with SOLAS regulation V/23 and resolution A.889(21).

Identification of relevant subsidiary bodies

12 The Sub-Committee on Safety of Navigation should consider appropriate revisions to SOLAS regulation V/23, and related operational issues.

13 The Sub-Committee on Ship Design and Equipment should consider appropriate revisions to resolution A.889(21), and may wish to consider whether similar changes could eventually have application to the requirements for embarkation ladders – a closely related item of lifesaving equipment – in the LSA Code. The Sub-Committee should maintain close liaison with ISO/TC8/SC1 concerning any relevant ISO standards or work in progress.

Action requested of the Committee

14 The Committee is requested to approve a new work programme item on improving the safety of pilot transfer arrangements for addition to the work programmes of the Sub-Committees on Safety of Navigation (co-ordinator) and Ship Design and Equipment (see paragraphs 12 and 13).

ANNEX

**PROPOSED REVISIONS TO SOLAS REGULATION V/23 AND
RESOLUTION A.889(21)**

The following revisions are recommended for consideration in SOLAS regulation V/23:

1 Securing the pilot accommodation ladder to the ship's side

1.1 Proposal

When a combination (pilot accommodation) ladder is used (i.e., an accommodation ladder used in conjunction with a pilot ladder), means should be provided to securely fix the lower platform of the accommodation ladder portion to the ship's side.

1.2 Reason

The accommodation ladder can easily swing out of control with the slightest of movements of a large vessel rendering the passage between the pilot ladder and the accommodation ladder hazardous.

2 Mechanical pilot hoist

2.1 Proposal

The use of mechanical hoists should be prohibited, and the current requirements related to the hoists should be deleted.

2.2 Reason

What the present regulation requires (a pilot hoist rigged together with a pilot ladder alongside "available from the hoist at any point of its travel") is impossible to realistically operate. Pilots generally consider mechanical pilot hoists to be dangerous, and are reluctant or refuse to use them.

3 Prohibition of outward opening shipside doors used for pilot transfer

3.1 Proposal

The use of outward opening shipside doors used for pilot transfer should be prohibited on all ships. Currently, such doors are prohibited only on ships built after January 1994.

3.2 Reason

Outward opening shipside doors are an unreasonable hazard to pilot safety, and present a serious danger to approaching pilot boats.

4 Diameter of man ropes

4.1 Proposal

There are currently no requirements for the maximum diameter of man-ropes. Man-ropes should be of 28-32 mm diameter so that the pilots can hold the ropes safely.

4.2 Reason

Grip tests have been conducted by groups of pilots, with the conclusion that a minimum diameter of 28 mm and a maximum of 32 mm would allow the safest use for transfer by pilots.

5 Rigging and use of man-ropes

The regulations should clearly specify the method to fix the rope end to the ring plate (for man-ropes only) fixed on the deck, and the man-ropes should be ready for use when the pilot disembarks, or pending a request from a pilot approaching to board.

The following revisions are recommended for consideration in resolution A.889(21):

1 Pilot Ladders

1.1 Vertical space between steps

1.1.1 Proposal

The currently specified step spacing (300-380 mm) should be changed to 310-350 mm so that pilots can climb up and down with greater ease and safety.

1.1.2 Reference

ISO 799:2004

1.2 Installation of step fixtures

1.2.1 Proposal

Installation of step fixtures to stabilize steps should be addressed in the requirements.

1.2.2 Reason

Step fixtures as specified in ISO 799 stabilize the steps by leading and supporting the side ropes, allowing for safer ascent and descent of the ladder.

1.2.3 Reference

ISO 799:2004

2 Accommodation ladders used in conjunction with pilot ladders (pilot accommodation ladders)

2.1 Maximum angle of slope

2.1.1 Proposal

The currently specified maximum angle of slope (55 degrees) should be changed to 45 degrees so that pilots can ascend and descend the steps with greater safety.

2.1.2 Reason

Limiting the angle to 45 degrees will provide greater safety in ascending and descending the ladder. The currently specified 55 degree maximum is believed to stem from old ship's fixed ladder designs, and is not suitable for safe use of pilot accommodation ladders.

2.2 Height of the lower platform

2.2.1 Proposal

There is currently no requirement governing the clearance level of the accommodation ladder's platform. The current IMPA recommendation is 3 to 7 metres above sea level, however a minimum of 5 metres without any upper limit would be preferable.

2.2.2 Reason

In some countries, pilots when transferring by tugboats or transferring on the open sea request 5 to 7 metres clearance above the sea level.

2.3 Width of the accommodation ladder

2.3.1 Proposal

There is currently no requirement governing the width of the accommodation ladder. The width should be at least 600 mm.

2.3.2 Reason

To ensure unencumbered passage for the pilot using the ladder.

2.4 Adjusting the distance between the pilot ladder and the lower platform

2.4.1 Proposal

The distance between the pilot ladder and the lower platform should be specified (0.1 to 0.2 metres is proposed).

2.4.2 Reason

If the gap is too far, i.e. more than the length of a limb, or too short so that the two steps overlap, the pilot may not be able to safely transition from one to the other.

3 Other topics

3.1 Distance between handholds

3.1.1 Proposal

The distance between handhold stanchions is specified as 0.7 to 0.8 m apart (paragraph 5 “Access to deck”). The same spacing should apply to handholds at a gateway in the rails or bulwark, and at shipside doors.

3.1.2 Reason

To ensure safe, convenient, and unobstructed passage when embarking or disembarking the ship.

3.2 Width of the gap in the rubbing band

3.2.1 Proposal

Where rubbing bands or other constructional features might prevent the safe approach of a pilot boat, they should be cut back or other arrangements made to ensure that persons are able to embark and disembark safely.

3.2.2 Reason

The current requirements only address the effect of rubbing bands on the ability of ladder steps to rest against the ship’s side, but they can also prevent the safe approach of a pilot boat.
