

PILOTAGE ADVISORY COMMITTEE WORKING GROUP

Training, Assessment and Examination Arrangements for Upgrading from Class IIA to Class I Pilots

Purpose

The purpose of this paper is to seek members' comments and advice on training, assessment and examination arrangements for upgrading from class IIA to class I pilots under the framework endorsed in the Pilotage Advisory Committee (PAC) meeting held on 18 January 2013¹.

Background

2. The latest Pilotage (Amendment) Order came into operation on 23 December 2016. Classes of pilots were amended from a five-tier structure (4 level of class II and 1 level of class I) to a seven-tier structure (6 level of class II and 1 level of class I).

3. Numerous meetings on details of training, assessment and examination arrangement were held between the Marine Department (MD) and Hong Kong Pilots Association Limited (HKPA) since the endorsement of framework in 2013. The training, assessment and examination arrangements for apprentice and class II pilots (up to class IIA pilot) was endorsed by the Pilotage Authority after consulting the Pilotage Advisory Committee (PAC) on 29 June 2016² (PAC paper no. 5/2016³).

Progress achieved

4. Consultation on the requirements for upgrading from class IIA to class I pilots was made in the PAC Working Group (PACWG) meeting held on 14 December 2015 (PACWG paper no. 5/2015⁴), no negative feedback has been received on the content for simulation training, practical vessel training, practical assessment and syllabus for oral examination (*Annexes I & II*).

¹ https://www.mardep.gov.hk/en/aboutus/pdf/pac_m130118.pdf

² https://www.mardep.gov.hk/en/aboutus/pdf/pac_m160629.pdf

³ https://www.mardep.gov.hk/en/aboutus/pdf/pacp5_16.pdf

⁴ https://www.mardep.gov.hk/en/aboutus/pdf/pacwgp5_15.pdf

Practical examination for upgrading from class IIA to class I pilots

5. Under the pre-amended Order, the maximum length of vessel a class IIA pilot can pilot is 260m. The practical examination for upgrading from class IIA to class I pilots is at *Annex III*.

6. Under the Pilotage (Amendment) Order 2016, the maximum length of vessel a class IIA pilot can pilot is 350m. The table below summarises the different Length Overall (LOA) for each class.

	IID	IIC	IIB	IIA	I		
Pre-amended Order	150m	165m	220m	260m	Any		
	IIF	IIE	IID	IIC	IIB	IIA	I
Existing Order	160m	180m	210m	250m	300m	350m	Any

7. Taking forward the status-quo arrangement under the pre-amended Order and consensus reached in previous PAC and PACWG meetings on the general direction of 3 joint practical examinations, discussions between MD and HKPA has been focused on the appropriate types and sizes of ship for the 3 class IIA to class I pilots' practical examinations. The general concept was to examine candidates on berthing three types of ship, namely, a container, a tanker and a bulker with a LOA exceed the limit of a class IIA pilot, i.e. >350m.

8. After series of serious discussions between MD and HKPA, consensus was reached on the followings –

(i) Part 1 – Berthing a Container Ship

It is necessary to test the candidate's abilities in piloting a container ship with LOA exceeding the limit of class IIA pilot. Therefore it is proposed the first part of practical examination should be:-

“piloting and berthing a container ship with LOA >350m, but need not be >364m, to Kwai Chung terminal on one occasion”

(ii) Part 2 – Berthing a Tanker Ship

On upgrading from Class IID to Class IIC pilots, candidates would have been examined on piloting and berthing a bulker or tanker ship with LOA from $>210\text{m}$ to $\leq 250\text{m}$. Considering that LOA of tanker ship visiting Hong Kong would mostly be not exceeding 250m, it is suggested, instead of using a tanker ship for class IIA to class I examination, it would be more meaningful to test candidates' abilities in unberthing a large container ship. Therefore, it is proposed the second part of practical examination should be:-

“Unberthing and piloting a container ship with LOA $>350\text{m}$, but need not be $>364\text{m}$, from Kwai Chung terminal on one occasion”

9. However, consensus was not reached on the part for bulker ship.

Different views between HKPA and MD

10. On the part of bulker ship, it was generally agreed that candidates should be examined on a bulker ship. However, there were different views between MD and HKPA on the size of bulker ship to be used for examination.

Views of HKPA

11. HKPA was of views that assessment on a large bulker ship should be kept as in-house assessment only because of the followings –

- (i) maneuvering characteristic of a bulker of LOA 250m or less was significantly differ to a bulker of LOA over 250m;
- (ii) it was unsafe to use a large bulker as an examination tool; and
- (iii) candidate's performance would be affected due to the presence of an examiner from MD, hence MD resource might be wasted if multiple failure occur.

Views of MD

12. MD has the following views –

- (i) one of the objectives in amending the Order was to create a structured, progressive, open and transparent training, assessment and examination system. It is the authority and duty of the Pilotage Authority to ensure a pilot is fully competent before granting him a license, and in this case an unlimited class I license;
- (ii) MD agreed with HKPA's view in respect of maneuvering characteristic of bulker ship with LOA over 250m, it would be much heavier in displacement which required a higher competency in pilotage skills;
- (iii) with the progressive structure, pilots would have been gaining and expending their pilotage competency in handling larger and heavier ships as they proceed along their career path;
- (iv) all pilotage training, assessment and examination are to be conducted under close supervision of a coach pilot, hence, risk involved would not be any higher than risk involved in an in-house assessment; and
- (v) it was noted that no record of a dry cargo/bulker ships with LOA over 350m has visited Hong Kong. The LOA of bulker ships visited Hong Kong were in the range of 100m to 305m, therefore, most probably, there would be no bulker ship of LOA >350m available for practical examination.

13. In consideration the significant difference in maneuvering characteristics between a container and bulker and modeled on the examination requirement set under the pre-amended Order, it is proposed the third part of practical examination should be –

“piloting and berthing a dry cargo/bulker ship with LOA >350m to any dry cargo vessel/ bulker berth on one occasion.*

*note *: If a dry cargo/bulker ship of LOA >350m is not available within 3 months prior to the date of upgrading, the candidate may take the practical examination with a dry cargo/bulker ship of less than but as far as practical close to 350m in length.”*

[para. 13 to be put on hold pending further research work to be done subsequent to PAC working group meeting held on 31 Oct 2018]

Advice sought

14. Members’ comments and advices are sought on the contents for simulation training, practical vessel training, practical assessment and syllabus for oral examination at *Annexes I and II*; and the proposals for practical examination on upgrading from class IIA to class I pilots in paragraphs 8 and 13 above.

Pilotage Unit
Marine Department
October 2018
[Updated on 31 October 2018]

Proposed Arrangements for Training, Assessment and Examination for Upgrading from Class IIA to Class I Pilots

Pilot Class	Maximum Length	Training, Assessment and Examination for Upgrading to Class I	
II A	350m	Simulation training (MD and Pilots)	Simulation training should comprise of at least 6 exercise scenarios, include piloting, berthing, anchoring and crisis management of heavy laden bulkers, tankers and vessels with LOA >350m or a length appropriate to the role played in various locations within HK waters ^{note 1} .
		2 practical vessel-training (Pilots)	Piloting & berthing a ship of any type with LOA >350m but need not be >364m ^{note 2} on 2 occasions.
		1 practical assessment (Pilots)	Piloting & berthing a ship of any type with LOA >350m but need not be >364m ^{note 2} on 1 occasion.
		3 joint practical examination (MD and Pilots)	<p>(i) Piloting & berthing a container ship with LOA >350m, but need not be >364m, to Kwai Chung terminal on one occasion;</p> <p>(ii) Unberthing & piloting a container ship with LOA >350m, but need not be >364m, from Kwai Chung terminal on one occasion; and</p> <p>(iii) Piloting and berthing a dry cargo/bulker ship with LOA >350m ^{note *} to any dry cargo vessel/ bulker berth on one occasion</p> <p><i>note *: If a dry cargo/bulker ship of LOA >350m is not available within 3 months prior to the date of upgrading, the candidate may take the practical examination with a dry cargo/bulker ship of less than but as far as practical close to 350m in length.</i></p> <p>[item (iii) to be put on hold pending further research work to be done subsequent to PAC working group meeting held on 31 Oct 2018]</p>
		Oral Examination (PAC)	As per Annex II to this paper
		Experience required	As required under Schedule 3 to Cap.84C

Note 1 : adjusted to match with endorsement for other classes made in PAC meeting held 29 June 2016.

Note 2 : adjusted from 365m to 364 m as per HKPA's advice.

Proposed Examination Syllabuses for Class I Pilot

**Examination Syllabus
For amending from Class IIA to Class I Pilot**

Practical Examination

The practical examination should consist of three berthing/unberthing of ships as follows –

- (i) Piloting & berthing a container ship with LOA >350m, but need not be >364m, to Kwai Chung terminal on one occasion;*
- (ii) Unberthing & piloting a container ship with LOA >350m, but need not be >364m, from Kwai Chung terminal on one occasion; and*
- (iii) Piloting and berthing a dry cargo/bulker ship with LOA >350m* to any dry cargo vessel/ bulker berth on one occasion*

*note *: If a dry cargo/bulker ship of LOA >350m is not available within 3 months prior to the date of upgrading, the candidate may take the practical examination with a dry cargo/bulker ship of less than but as far as practical close to 350m in length.*

[item (iii) to be put on hold pending further research work to be done subsequent to PAC working group meeting held on 31 Oct 2018]

Oral Examination

A comprehensive knowledge of –

- (i) Tidal streams, depths and shoals throughout Hong Kong waters;
- (ii) Characteristics of all lights, buoys, beacons, bridge lighting system and harbour facilities throughout Hong Kong waters;
- (iii) Depths and scope of berth at all Government mooring buoys;
- (iv) Limits of local pilotage areas including prohibited areas, anchorages and areas of restriction of any kind; (These will be indicated by the candidate on a plan of Hong Kong waters.)
- (v) Berthing and unberthing at various wharves, piers, buoys, etc. in Hong Kong under the influence of wind, current and tide;

- (vi) Manoeuvring behavior of the types of ships expected to be piloted and the limitations imposed by particular propulsion and steering systems;
- (vii) Use and limitation of various types of tugs;
- (viii) The bridge equipment and navigational aids used for navigation, i.e. radar, Automatic Identification System (AIS), Electronic Chart Display and Information System (ECDIS), etc.;
- (ix) Systems of radio navigational warning broadcasts in Hong Kong and the type of information broadcast;
- (x) International Regulations for Preventing Collisions at Sea 1972 as amended, port regulations and pollution prevention rules;
- (xi) Use of VHF in accordance with the International recognized standards;
- (xii) Hong Kong Merchant Shipping Notice, Hong Kong Merchant Shipping Information Notes and Marine Department Notices (MDN);
- (xiii) Handling emergency conditions, i.e. collision with other vessel, grounding, loss of steering, loss of propulsion, failure of vital systems and automation, *complete blackout [newly added by MD]* etc. in a narrow channel or fairway; *or near submarine infrastructures [newly added by MD]*; and
- (xiv) Knowledge required in the examination syllabus of class II Pilots.

Other Requirements

Candidate is required to produce the following training records to the Pilotage Authority –

- (i) Simulation training;
- (ii) 2 practical vessel training;
- (iii) 1 practical assessment; and
- (iv) any other training and courses attended.

[Note: presentation adjusted to match with endorsement made in the PAC meeting held 29 June 2016]

**Practical Examination for upgrading from class IIA to class I pilots
under the pre-amended Order**

- (i) berthing a container vessel of not less 260m in length to Kwai Chung terminal.
- (ii) berthing a dry cargo vessel/bulker of not less 260m^{note 1} in length to any dry cargo vessel/bulker berth.
- (iii) berthing an oil tanker of not less 260m^{note 2} in length to any oil tanker berth.

note 1: If a dry cargo vessel/bulker of not less than 260m is not available within 3 months prior to the date of upgrading, the candidate may take the practical examination with a dry cargo vessel/bulker of less than but as far as practical close to 260m in length.

note 2: If an oil tanker of not less than 260m is not available within 3 months prior to the date of upgrading, the candidate may take the practical examination with an oil tanker of less than but as far as practical close to 260m in length.