AIMPA

Safety & Securtiy

All India Maritime Pilots' Association

Providing Peek into Maritime Pilots' world

ISSUE III OCTOBER 2020

Re-concenptualising Indian Maritime Pilotage

A WEBINAR ON PILOTAGE

All India Maritime Pilots' Association

Supported by

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The Nautical Institute

CHIRP MARITIME

AIMPA Invites you to the first technical webinar on pilotage -

Re-conceptualising Indian Maritime Pilotage on 24th October, 2020, 1330 hrs to 1530 hrs IST

Program Flow

1330- 1335 - Introduction

1335- 1340 - Welcome speech, Theme of webinar - thought process.
Gajanan Karanjikar

Pilot ladder safety and Pilot transfer (ladder safety. crew training, Pilot transfer intricacies, Pilot boat crew)

1st Session - 1340 to 1430 hrs

Moderator: Ravi Nijjar

- **Simon Meyjes** - Pilot ladder safety and Transfer procedures
- **Sansarchandra Choubey** - Pilot boat/ Pilot crew from port perspective.
- ***Jeanine Drummond** - Pilot transfer. (TBC)
- **Capt Santhosh Rangan** - Sailing Master with Fleet Management HKG- Masters perspective on MPEX, Piot transfer
- **Q/A- 1420 to 1430** - Conclusion and session Valedictory by Moderator (Questions will be asked on chat)

Need for Pilot training for Safety of Navigation (Soft skills, team work, simulator Vs manned models, Human factor in accidents)

2nd Session : 1430 to 1530 hrs

Moderator: Vinod Kumar Gupta

- **Andrew Beazley** - (Manned scaled model training)
- **Simon Meyjes** - (Human factor in Pilotage and safety of navigation)
- **Anand Karkare** - (Benchmarking of Pilot training In india.)
- **Jeff Parfitt** - (Analysis of incident for Pilot training and Safety of Navigation)
- **Q/A- 1510 to 1520:** Conclusion, Session Valedictory by Moderator (Questions will be asked on chat)
- **1520- 1530 Hrs.:**Webinar conclusion
  Vote of thanks: Rajesh Nambiar

Kindly register on:
www.linktr.ee/imei.m

*to be confirmed

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From President's Desk

Capt Gajanan Karanjikar, President- AIMPA

AIMPA's commitment to look after the safety and security of Maritime pilots in India has taken a good shape by creating awareness about the Pilot ladder safety matters and reaching to all those who matter. Pilot ladder safety is not a one-time matter and needs continuous attention of those who tend to it. The seriousness about the Pilot ladder needs to be percolated till the last man standing (rigging) that ladder. The pilots have to be constantly be on alert while embarking and disembarking. This constant vigilance and act of weighing situation that may put their own life in danger as it does take a toll on their state of mind.

AIMPA promised itself and industry that it will reach to every seafarer through Pilots either to train on board or in MTIs or through special lectures/ briefings. This is must step to improve upon the near misses and reduce the rate of incidences. We still have about 60% pilot ladders as non-compliant.

Teaching in Maritime Training Institute is one way of reaching out the seafarers, AIMPA also did the briefing of joining crew in shipping companies. Idea of this training is to show the seafarers other side of the story which is not visible to them from deck. The involvement of Indian Pilots in this kind of teaching is really commendable.

The holistic teaching about Pilot transfer is not taken up in formal education for the candidates at Maritime training institutes and other courses. That needs to be added in our syllabuses. Moreover the consequences of pilot or some other officials falling off the ladder are unknown to seafarers at large. Important that this needs to be explained in detail.

On leaps and bounds, the AIMPA's percolation is increasing so its responsibility radius. We can two things in life as to look at the present from the past or look at the past from where we are today.

AIMPA is proud to have covered the ground but still has a lot more to go. Keeping one eye on that goal AIMPA is committed to bring as much reforms for pilots and system implementation in Pilotage.

There are many subjects AIMPA aspires to handle in future. Form Pilot training to safety of navigation in ports. Stay tuned for this journal and you will see a very valuable inputs from the industry. AIMPA wishes to run campaigns for the ports, hold international webinars and contribute to global pilots' welfare.

We wish all the Maritime Pilots safe trip and happy rides on boats as well as on ships.

Capt Gajanan Karanjikar
President- AIMPA
All India Maritime Pilots Association
Email: aimpaofficial@gmail.com

Readers Views

Jillian Carson- Jackson
President Nautical
Institute London.

Dear Capt. Karanjikar

This is very good – I am enjoying reading about the training, and the personal comments from Malcolm on his fall are very good to have – hard to read, but good to have.

For the training, and noting the experiences that Malcolm had, and the results of the incident investigation, points to training for the full pilot launch team. The specific comments on trauma training, but also in the process of boarding and disembarking (the count down the steps to the deck, for example; procedures for hooking onto the rail; training and drills for when things go wrong; pilot launch handling for manoeuvring alongside; etc). In NI SE Australia we have begun looking critically at the training and qualification of the full pilot boarding team.

I do offer my sincere congratulations on an excellent publication. I am very pleased to see the professionalism and quality of the articles in this publication. I look forward to further issues, and to following AIMPA as the organization continues to grow and support pilotage in the region. Well done!

Regards,
Jillian Carson- Jackson
President Nautical Institute London.

Shiv Halbe
CEO, MASSA

Dear Sir, Good day.

Firstly, would like to compliment you and your team on this initiative. The bulletin is very informative and educative, as it gives first hand accounts by the pilots and other stakeholders, of this extremely important aspect of trade, without which global trade would almost come to a standstill or at best, would be severely impacted, with terrible consequences to the planet, people and profits- the 3 pillars of sustainability.

Secondly, your efforts to actually reach out to the 'common' sailor are laudable. The rigging, maintenance and upkeep of the pilot ladder is done by the ships staff and that you are reaching out to training institutes, like MASSA academy in Navi Mumbai, and companies to address the people at the front end is commendable. This will not only highlight to them the seriousness of the issue but also assist in saving lives and prevent incidents.

AIMPA has embraced the axiom: Knowledge is the only thing that increases by sharing!

Well done- keep it up.

Best regards,
Shiv Halbe
CEO, MASSA

Readers Views

Herman Broers
Pilotladdersafety.com

Good day Captain Karanjikar,

Thank you for your contribution! Your work for the AIMPA and pilots in general is very impressive. I have posted the article of Troy Evans about pilot ladder testing on the website, you can preview it via the following link: https://pilotladdersafety.com/?p=796

Furthermore, as mentioned in the post, the readers of the website can download a copy of your magazine via the website as well. I will make reference to this post on social media that is Twitter and Linkedin. Finally, I have mentioned your Name on the Who's onboard section of the website.

Perhaps via your members you can raise awareness about the website pilotladdersafety.com, twitteraccount@pilotladdersaf1 or our linkedin group Pilotladdersafety.

I wish you good sailings,

Keep up the good work, stay healthy and safe,

Best regards,
Herman Broers
Pilotladdersafety.com

Sanjeev Pande,
(17yrs Pilot at various Ports in South Gujarat, India)

Dear Editorial Team,

Thanks for starting a journal for pilot and pilotage issues. It fulfils a long standing need of pilots.

I read Arnie Palmer's article - "1000 Ways to Secure Pilot Ladders" - with great interest and delight.

The article emphasises in several places that the lower most 4 steps "shall" be made of rubber.

But the IMO Resolution 1045(27) based on which this assertion is made uses the words "may" be made of rubber. I feel this should be corrected.

After all, this article being so detailed and relevant, will be used in various training talks and programs all over the world!

Best regards,
Sanjeev Pande,
(17yrs Pilot at various Ports in South Gujarat, India)

Readers Views

S. M. Rai

Dear Capt Gajanan

I was very pleased to go through the first two issues of AMPIA. An Indian journal for the Marine Pilots in India has been a long felt need of the profession and was happy that with the initiative taken, at long last a void has been addressed.

Role and function of a pilot is very critical and challenging. To manoeuvre a totally unfamiliar vessel in varying weather, Sea/Canal/River conditions and confined waters every time is a task by itself. Issues of Safety & security are always prime. During the current pandemic, pilot being first onboard a vessel, has its own peril and risks.

Articles in the two issues have been very informative and educative. Availability of AMPIA platform now to the select fraternity to share their experiences and exchange notes for furthering the knowledge is most opportune and welcome. It would also help in enhancing awareness among the general public and sea & port officials. Am sure AMPIA will work in that direction.

My best wishes to the team.

Regards,
S. M. Rai

Capt. Pankaj Kapoor

Dear Capt Karanjikar,

All articles are very well articulated. The flow between subsequent articles is excellently maintained and in such a way that the reader remains gripped with the content.

One of the most controversial issues worldwide is "Master/ Pilot" relations and I feel that a small article focussing on that would be highly appreciated in the shipping industry.

Rgds,
Capt. Pankaj Kapoor.

Personality of the month

Capt. N. N. Tara

How many times have you come across a Maritime Pilot who is a Bawaji?

Capt. N. N. Tara belonging to a minority but a very progressive community of India, the Parsi Community also fondly known as Bawajis. After finishing his schooling in Bilaspur, a small town in Chattisgarh province of India. While doing his first year of engineering he got selected and joined the prestigious T. S. Rajendra in 1976 as a Cadet. Though Capt. Tara's family was well settled as a stock broker and was doing good business, still he followed his inner calling of becoming a Sailor and this is how a prospective bull became a Pilot. It will not be an exaggeration to call him Dronacharya (the great teacher of ancient India) of present time in the field of Maritime Pilotage. Before becoming Pilot he sailed with India Steamship Company till he took command of a bulk carrier belonging to Poompuhar Shipping Corporation. He recalls, It was his first day on the Helm at Tuticorin anchorage, an upcoming port down South in India, only to find his ship surrounded by over a dozen other ships anchored in vicinity awaiting docking due to labour strike. All of a sudden he got an order from his head office for proceeding to Haldia. Never in his previous experience he had faced such a situation. Moreover it was the first day of his command, what to do?

Should I, shouldn't I?.

Confidence took over the fear, Adrenaline was high but he managed to manoeuvre safely out of the mess. It was then he decided to become a Maritime Pilot. Following his heart, he joined as Mumbai Pilot [Bombay Pilot then] in 1988 and subsequently piloted vessels of all sizes and drafts in different parts of the globe from JNPT in India to Salalah in Oman to Meena Al Fahal in Muscat to Dahej in Gujarat and presently Karaikal in Union Territory of Pondicherry. His contribution in Mumbai Port during his second stint was worth appreciating wherein he single handedly boarded a disabled ship after it had collided with another ship and managed her to anchor safely, thus avoiding a major catastrophy. His Piloting carrier spreading over three decades makes him one of the finest professional who never took piloting as a burden, in his own words "Piloting vessel gives me a deep sense of joy and satisfaction, not even for a day I felt I am going for a job, but would always look forward for another days work".

An Updated Version on Positioning of Pivot Point

Capt. Santosha K. Nayak, Marine Pilot, Krishnapatnam Port

Capt. Santosha K. Nayak,
Marine Pilot, Krishnapatnam Port

Understanding the fundamentals of the pivot point is highly required for understanding the alteration of the courses. Pivot point is an imaginary point on the vessel which turns on a circular path on the perimeter of vessel's turning circle when the vessel makes a turn. The knowledge about the position of the pivot point in a manoeuvring situation provides the ship handler with the information on the geometry of motion of the ship. When sway and yaw occur simultaneously, a ship handler can only perceive the combined effect of drift and turn, which gives him a false impression that only a rotational motion happened about a certain point on the ship's centreline. This apparent centre is called the Pivot Point of the ship. This is a simplified perception of two motions down to one motion.

It is at the same point as the longitudinal centre of gravity of the vessel when vessel is stopped and making no movement. It starts moving towards the bow when the vessel increases her speed. The distance of the PP from the longitudinal COG varies with the speed of the vessel.

We can understand the existence of pivot point mathematically as an imaginary point. Among all the points in the ship in planar motion, there is only one point on the centreline at which the sway and yaw completely cancel each other, thus making this point seem to be stationary. All other points appear to be turning about this point. This point is the Pivot Point.

Sway means the linear transverse (port to starboard) motion. This motion is generated directly either by the water and wind or currents exerting forces against the hull or by the ship's own propulsion or indirectly by the inertia of the ship while turning. Yaw is the rotational motion of the vessel about the vertical axis. If the sway speed and yaw speed are known, the position of the pivot point can be obtained as the distance from the centre of mass (GP) using equation:

$$V + (GP \times ROT) = 0$$

Where, $V(m/s)$ = Sway Speed;
G = Centre of Gravity;
P = Pivot Point;
$GP(m)$ = distance between P and G;
$ROT\ (rad/s)$ = Yaw Speed.

There are some traditional views held by ship handlers of the Pivot Point and also mostly found in the literature of books on ship manoeuvring.

These views about pivot point:

- It moves towards the bow or stern depending on the direction of the longitudinal motion of the vessel
- When making sternway, the pivot point moves aft and establishes itself approximately 1/4L from the stern
- It is the centre of rotation of the vessel
- It has instantaneous movement from the COG to its position.

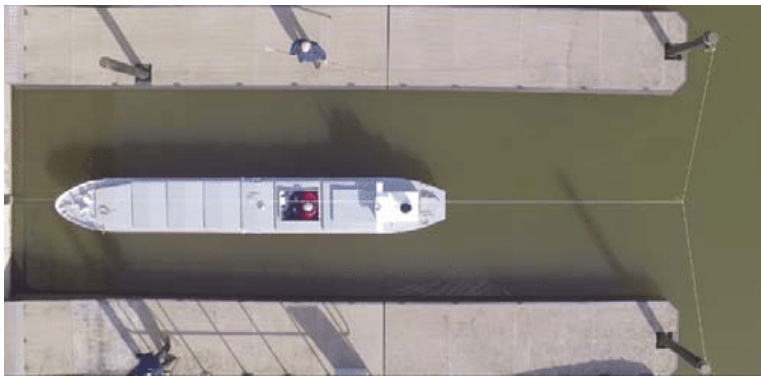
There have been many experiments carried out to understand the existence of Pivot Point and how it moves with the motion of the vessel. There are some new findings related to Pivot Point and the some of the traditionally held views about PP are incorrect. All the above mentioned views are incorrect. The corrected facts about PP are:

- It is independent of direction of motion,
- It is only an imaginary point
- It moves gradually towards or away from the COG depending on the application of forces on the vessel.

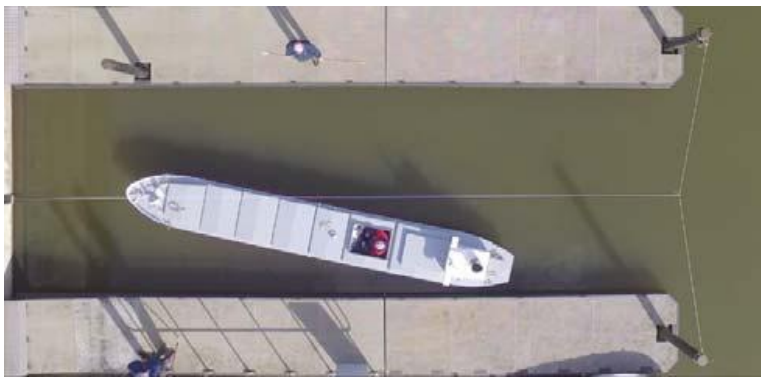
However, ship handling professionals, particularly the seasoned practitioners, find it very difficult to accept these findings.

Verification Experiment to establish the location of Pivot Point

A verification experiment was done for a panamax vessel. The ship's turning force was provided by setting the engine half astern. The propeller is right handed with fixed pitch. For the purpose of analysis, the whole experiment was divided into 8 time intervals. In each interval, the result was analysed calculating the position of the pivot point as the average in the interval. The positions are given as percentage lengths between the bow and the pivot point, to the length of the ship. The experiment shows plainly that the pivot point was at around 17% of the ship length from the bow. Near the end of the experiment, it is obvious that the pier is interfering with the water flow being created by the propeller.



The Starting Position



The Final Position

This experiment conclusively proves that the traditional TV teachings and leanings about the pivot point for centuries are incorrect.

Position of Pivot Point as deducted from the experiment

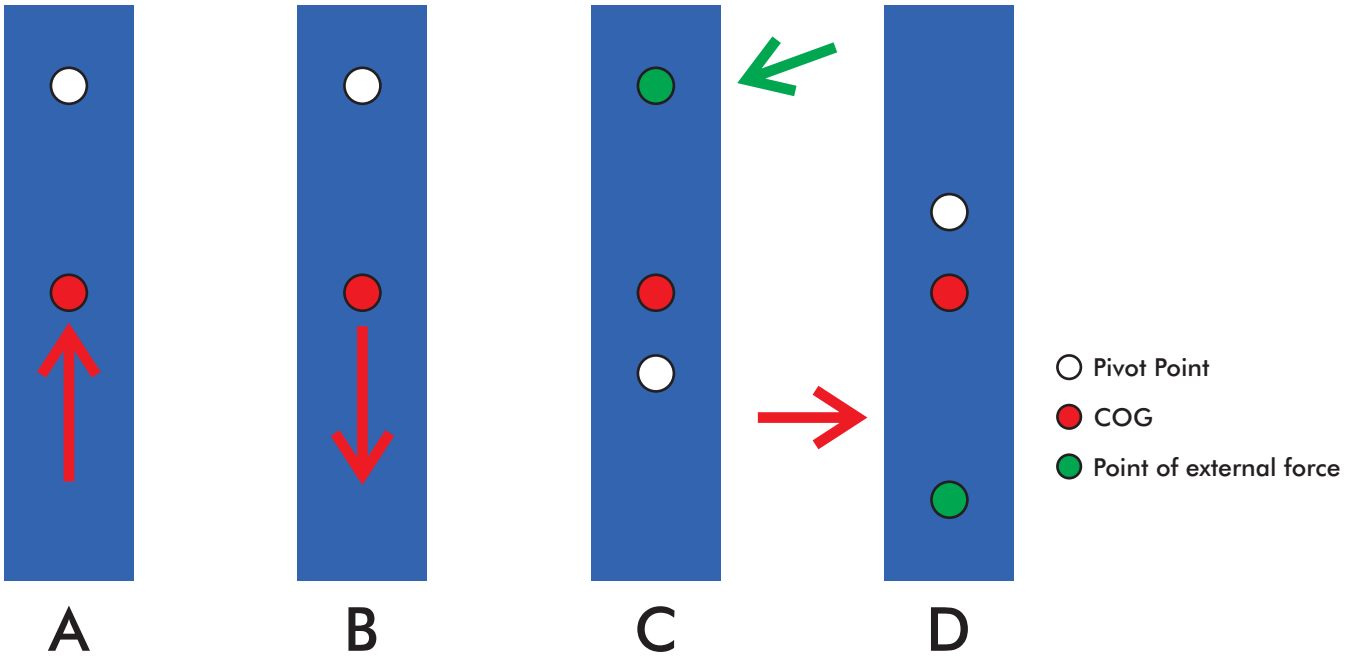
The exact position of the pivot point may be deducted from the following formulae. GP is the distance of the Pivot Point (P) from the longitudinal Centre of Gravity (G).

GP = - (L2 +B2)/ 12GFr, is a simple equation for a box shaped vessel
Where, GP – Distance between the GOG and PP,
Fr – Position of Resultant force on the vessel,
L – Length and B- Breadth of vessel

The interpretations of above findings are essential knowledge for the ship handlers. Above equation correlates some practical points which can be used by ship handlers during manoeuvring of ships are as follows:

- The minus (-) sign indicates that the pivot point appears on the other side of G from Fr.

- A bigger GFr yields a smaller GP, which means that an external force farther away from G causes the pivot point to be closer to G.
- A bigger block coefficient will cause the pivot point to be closer to the bow.
- The direction of the longitudinal motion is irrelevant with the pivot point location.
- If the propeller and rudder combination at the stern is used as the only propulsion system, the pivot point will always appear near the bow.



A - Vessel moving ahead,
B - Vessel moving astern,
C - Vessel experiencing external force
D - Vessel being pushed by one tug (In case 2 tugs, the tug applying more force decides).

The pivot point settles down at one point when the motion of a vessel becomes steady. All above observations are confirmed by pilots carrying out manoeuvring regularly on day to day basis. The understanding of above facts can be understood very well when vessel is making an astern movement at a certain speed aided by the tugs while keeping in a restricted and narrow channel.

Sailing towards Innovation

Captain Debashis Basu

Captain Debashis Basu

It all started with a few drops, and before you knew it, the downpour was torrential!

As the raindrops fell on his beautifully manicured lawn, Capt. Alan was sipping on his morning coffee and preparing himself for a rough day. In a few hours, he would have to board the pilot boat, and it will be a rough ride. The waters of the bay are never easy on a rainy day; and a choppy sea with a VLCC in ballast – not a good combination. He knew he could refuse if he felt unsafe, but how unsafe is unsafe, really? Will it be any safer any other day?

Plus once he boards the vessel, there is the obvious challenge with the visibility. Traffic is never easy at this time of the year and the Master would have to rely on him entirely, as the expert in the area.

As he kissed his baby girl goodbye and turned around to leave, in that very moment, years of experience brought about a strange confidence in him, deep down.

You could see his frown change into a twitch of a brief smile as his ride pulled in, right on time.

My thoughts

It was the same Monday morning in a different part of the world.

I was on my laptop and had embarked on this exciting journey of writing an article for the All India Marine Pilots Association (AIMPA) journal, which I knew would be circulating the world.

The obvious question was: What could I possibly say?

See, I have been a sailor all my life, commanding some of the biggest giants at sea. Yes, I have interacted with Pilots and worked with them closely for several years now. But how much do I know of their lives? Sparing some memorable conversations with a few Pilots (I distinctly remember one in Melbourne Channel and one in Basrah), I have never had the privilege to come close to their lives, to know their challenges and triggers.

More importantly, why don't I know?

After having spent twenty-two years at sea, why do I know more about the life of Donald Trump or Lady Gaga than of my fellow Bridge team colleagues whose decisions I trust with my life? In trying to answer this question there came a couple of great revelations.

Information Gap

Try Googling the words: How is the life of a Marine Pilot? Just a few relevant hits.

Better yet, try Googling: How is the life of an Indian Marine Pilot?

No hits this time!

All you find is information on how to become one, and a few incidents involving Pilots. The lives of the Marine pilots remain obscure since

there are just so few platforms where they are being discussed!

To its credit, this journal seems to be a bold step in the right direction in trying to mend that. In today's day and age, there is no excuse not to share our thoughts, not to stay connected and not to share solutions within each other. Kudos to the founders of AIMPA on such a great move!

Technology to the rescue

We can dream big.

There is one other thing I think I can talk about, and that is innovation and technology. It has been a few years that I have been working on several proprietary software instruments to ease off the burden of a seafarer. By extension, I have seen what technology and its judicious use can do to any profession and how it can make life easier.

External comfort has grown over the years. Your smartphone has already replaced your telephone directory, your ability to fix up a time two days in advance to meet someone at a certain place, your ability to remember directions, the baby sitter, the old metal alarm clock, the need to cook at home or hail a cab with outstretched arms!

You have all that, and more at your fingertips now. Your mobile phone has more computing power than all of NASA combined when they put people on the moon. Technology has entered every part of our lives in all shapes and forms and merged into us entirely.

Our vision

A few months back we were entrusted to create a prototype app for the use of Indian Marine Pilots. Earlier last month we circulated the basic version of the AIMPA App for a beta test.

This app can transform the landscape for Indian Pilots. Real-time reporting on ship's conditions, non-conformities, and general confirmation of movement of various pilots along the coastline are just a few of the features we can incorporate into your handheld device. It then extends into several other areas reducing paperwork and enhancing ease of operation.

But that is not all. Through our future plans we also intend to bring out the human element of a Pilot by incorporating and encouraging participation across the world, not just professionally, but on a personal level as well.

Remember Capt. Alan who was about to board the VLCC in choppy weather, and how his frown turned into a smile as he left home? Can we be the conduit and capture that moment in time to show the world how concern translates to confidence?

If I am being discreet and figurative for now, it is on purpose. The future is perhaps best left to the imagination. Let's just say if you can think it, it can be done! It is for us to provide the platform, and for everyone else to come forward and participate!

Connecting the dots

7.8 Billion people occupy roughly a third of this crowded earth, and WE occupy the rest!

We, the occupants of the sea, Sailors, Pilots, with our small operating crew are a very closed tribe from various ethnicities and cultures with very similar challenges and needs. It is only natural that we know and understand each other. We have remained as isolated dots, often feeling left out and deriving solutions to our problems by ourselves.

Thanks to the present day and age, we now can connect these dots to complete the picture! It's long overdue.

The Founder Partner of Navguide Solutions & Creator of Guide2Inspections™, a proprietary process for Ship-inspections. VLCC Master; Author; Blogger; Member of the AIMPA Editorial Board; The Nautical Institute and Company of Master Mariners; SIRE and PSC Inspections Trainer.

International Marine pilot platform for information and knowledge exchange an acute necessity

Mr. Frank Diegel

Mr. Frank Diegel

A Marine pilot would like to obtain information and further training on specific topics, would like to be informed promptly about current news and events and would like to exchange experiences and opinions with colleagues, not only from within his own organisation, but also across national and organisational borders. I for one, would like to find everything in ONE place.

The existing national and international structures, social media channels or the well-known maritime publications cannot meet all of the above needs. Large pilot organisations, for example, have a rather political mission and are not a maritime online magazine that reports daily about this and that down to the last corner of the world. News streams in social media channels such as Twitter, LinkedIn, Facebook and others are often up to date and fast, but the information is usually neither edited nor checked for truthfulness. Therefore the information "runs" through the news stream and after a few hours it has disappeared from the visible area and is therefore lost. The information does not remain there permanently. The common maritime online magazines only have a very small amount of pilot-specific content.

The importance of exchange of information within Marine Pilots and their connected offices cannot be overemphasised. The world data on Marine Pilot is very scanty and the pilotage activity is also quite fragmented. The silos of Pilotage operations contained within port, are stand alone and hardly any incidences, near misses are shared with outside world. Hence the learnings from near misses are not captured and percolated outside the port for others to learn from someone else's mistakes.

If you study the trend in the pilotage accident, you will see a repetition of the same mistakes and so are the defects on board wrt Pilot ladders. There is immense need to curb this and collect various near misses as well as Incident reports so that we have ample data to analyse the things and this also can be shared across countries, MOUs and other organisations.

Therefore, more than a year ago, I decided to found my own pilot portal with Marine-Pilots.com, which aggregates the many individual information islands on the internet and can serve as a central source of information for pilots. As a first step, our team

has tried to "measure" the international pilot world, whether non-profit or commercially organised, in its entirety and to record and make visible as many organisations and companies offering pilot services as possible. To date we have collected more than 600 profiles from 120 countries around the world. We welcome any feedback, which will further complete this database for pilots. A tremendous Sisyphean task!

Central part of the portal is the collection of pilot-specific content, be it articles, news or even videos. All sorted by topicality and topics. Individual pilots have the opportunity to publish their opinions, experience and expertise in articles and make them available to a wide audience. A large part of the specialist articles come from the pilots themselves and are almost always truly unique content! The articles are discussed by the large community and the content is further distributed. Unlike social media, however, this information remains available in the long term, thus creating an ever-growing library of expertise and information for the world of pilots.

Marine-Pilots.com is celebrating its first birthday these days and we are surprised by the very positive feedback. We have achieved great relevance and acceptance in a short period of time and are used by many pilots to inform about their job. Only with the participation of the individual pilot in the large pilot community the amount of information continues to grow. I hereby invite everyone to participate!

About the author Mr. Frank Diegel

Frank Diegel is 52 years old and has studied computer science. For almost 10 years he has been developing hard- and software especially for pilots. The topic of digitalisation in shipping is his great passion.

Note from AIMPA President Capt. Gajanan Karanjikar

Very well elaborated Frank, we need to have that platform urgently and AIMPA is proud of the work Marine-Pilots.com is doing. The sharing of knowledge has no longer remained a virtue but is definitely a necessity in today's times of advanced technology. We need to have collective efforts on this from all organisations like CHIRP etc that are doing fantastic job for Maritime safety. AIMPA is also poised to take Indian Port Harbour front matters and safety of Navigation under its ambit to enhance and contribute to marine pilots, persons and port safety.

The Legacy of a 350 Yr old Pilot Service

Reshma Nilofer, Pilot, Syama Prasad Mookerjee Port, India

Reshma Nilofer

It is indeed a blessing and pleasure to be living in the times and be a miniscule part of a Pilot Service that turned a Glorious 350 yrs Old, July of 2019 and turned a Landmark Service of expert navigators of this country. The milestone is yet another under-rated occurrence where the Service has stood the test of time, working through the various challenges, wars, Freedom, different administrators, perspectives and demands of changing times like incorporating the newer and dynamic technological advancements and been the turning point for welcoming and embracing the expansions and newer sophisticated Port and facilities provided to the users and stakeholders alike.

Kolkata has now grown to become India's third populous city and commercial headquarters of sorts for the hinterland but did you know that it all started centuries back from the Port of Calcutta! Yes, Calcutta Port was envisioned way before the town itself became the hub around which people would settle.

The Kolkata Port Trust now renamed as Syama Prasad Mukherjee Port actually evolved from the Calcutta Port Commissioners. And the Calcutta Port Commissioners evolved from and around shipping and trade in the then Capital of India, Calcutta and the body of Pilots, the erstwhile British 'Bengal Pilot Service' on this River Hooghly. The earliest to reach this river shores and to set up commercial settlements in Bengal were the Portuguese (1537) followed by the Dutch (1645). Around trade, emerged a robust shipping hub - the Town of Hooghly and then came the East India Company. The rest of the East India Company's maraud is well documented history. The eventuality of the shipping movement was that, despite compensations and extra monetary benefits extended to Captains of ships coming up the river, they refused to be persuaded to bring up ships through the river owing to tremendous difficulties due to the treacherous river passage, fearsome bends, restricted depth,

Kolkata Port Trust has recently been christened after Dr. Syama Prasad Mukherjee, on 12th January 2020 during its 150th year celebration, by the Prime Minister Shri Narendra Modi.

narrow channel, gushing tides and ever shifting sandbars in the river (The three B's - Bars, Bends and Bores). The tidal range is as high as 6.5 metres and current over 8 knots on Perigee Spring tides. The bore tides — the incoming flood tide rushing and gushing inland like a tidal wave of immense strength are a dreaded phenomenon seen in few navigable waters of the world. **Swinging a fairly large feeder vessel or a low powered sluggish Tanker also in restricted channel, is not an easy task. On the insistence of the Captains of the East Indiamen, the Directors of the East India Company agreed to bring a few meritorious officers who belonged to the Cinque Ports station and train them as Pilots for the river Hooghly. (Cinque Ports station was the then best-known Pilot Station in all of England). Thus, originated the Bengal Pilot Service when the Governor of Bengal, when approached by the East India Company, formally granted permission on July of 1669.** Documented evidence suggests that the elite officers on seven years apprenticeship were George Heron, James White, Thomas Massen, James Ferborne, John Ffloyd and Thomas Bateman. Among them George Heron was the first Englishman to be a trained Hooghly Pilot to bring in and take out "Falcon" (380 tonnes, Captain Stafford) in 1679. However, the first East Indiaman to sail up the river was Samuel Hacon. He was among the first local-expert Englishmen to be trained by the last and departing Portuguese Pilots and had brought up the river, "Rebeccah" (170 Tonnes, Captain James Mariner) in July 1672 itself. Today we have a dedicated River Hydrographic Survey Service but then, George Heron also took credit for sounding and preparing the navigational chart for the river passage and issuing the Sailing Directions!

Being masters of the craft and having a noteworthy safe Pilotage record through the centuries, our Pilot Service has always possessed great pride and prestige.

In their early days, the Bengal Pilots were drawing wages many times that of Captains of Ships. No person on the ship below the rank of a Colonel or an Officer other than a Senior Captain dared to address them. Soon when Queen Victoria took over the Government of India in 1858, the Service became a covenanted service of the British crown and recruitments had to meet the approval of the Viceroy of India'. Rudyard Kipling and Conrad mentioned them in rapturous terms.

"Almost any pilot will tell you that his work is more difficult than you imagine, but the pilots of the Hooghly know that they have 100 miles of the most difficult river on earth running through their hands and they say nothing.„ " - Kipling.

Today the Calcutta-Hooghly Pilot Service officers no longer draw salaries so high, and are neither a Crown Service nor gazetted officers of India. However, the pride has remained immaculate, been passed down the generations and remains contagious spreading to the youngest of Pilots. We still have some of the little rituals inherited from the British intact, like our uniforms we wear with pride. Some lucky ships may even today, get to spot or get the advice from a Sikh Pilot with a fierce moustache and beard who wears a starched crisp white turban with the emblem attached at the peak of the turban!

The system of picking junior officers and training them to groom them into pilots is centuries old. As early as 1877, British cadets who were the most meritorious were picked out from British training ships (Worcester & Conway) and inducted into the Bengal Pilot Service. The practice was rarely exempted and then Indian 2nd Mates Licence holders were also taken. When 'Indianizing the service' eventually started in 1931, Mr D.J.Daniel, the first Indian officer was recruited in 1931 and retired in 1967 as the last Port Pilotage Officer. In 1932 Capt. B.S. Pavri and Dotival joined service and Capt. B.S.Pavri retired as the Harbour Master, River. In 1933, another 7

trainees were recruited and ex-Dufferin cadets continued to enter until all recruitment was deferred in 1942 until 1945 due to the war years. 1945 onwards, the earlier system of direct recruitment of the *cream' — The Extra First-Class candidates directly from the training ships came back, only, this time from Indian training ships. Nevertheless, each one of them then and now, continue to prove worthy of being called the descendants of the Finest Pilots of the World and of pilots like George Heron and D.J. Daniel.

India's Independence in 1947 and the Bengal partition ushered another chapter of the service.

The 280-year-old service (The last 90 as a service of the Crown), now had to be renamed from Bengal Pilot Service to Hooghly Pilot Service and was handed over to the Chairman of Calcutta Port Commissioners, 15th of May, 1948. In 1964 again the service had a new nomenclature as the Calcutta Pilot Service after the amalgamation of the river and port sections of the operational services.

Khidirpur dock ages back to 1892 and Khidirpur dock II completed in 1902. Pontoon oil jetties of Budge Budge was commissioned in 1896. The Garden Reach jetties came up in 1925. The Erstwhile King George's Dock which was commissioned in 1928 is now the Netaji Subhash Dock (1973). In 1967-68, Haldia Dock complex was planned and commissioned for International Trade in 1977 with yet another impounded dock system with 12 berths and 3 oil jetties came up one after the other starting from 1968. Most recent development was the opening of Eden Channel (Western Channel) for all inward ships to Haldia.

Kolkata Port Trust then used two Pilot Vessels Sagad and 'Samudra' at Sandheads, which were MS Class (Seagoing Vessels) for the Pilots to be stationed at, between movements and when they had served their prime, replacing them with Pilot Vessels of such calibre was expensive and difficult.

Over the next 50 years, Kolkata Port Trust was a Pioneer of its kind in India bringing about the first of a kind Vessel Traffic Monitoring System for effective and safe guidance of ships from Sandheads to Haldia with radar surveillance. The system was operational in April 1996. Further, for the requirement of ISPS code and also for maintaining a back up to the VTMS system, a stand-alone VTS with Automatic Identification System (AIS) facility was established at the Saugor pilot station in May 2005. Eventually the VTMS and Saugor VTS have led to the reduction in the distance of pilotage hours, allowed the use of a smaller Pilot Vessel Ma Ganga off Sagar Island where the River Pilot actually gets onboard and had allowed for pilots to board ships in sheltered waters. Nevertheless, the Haldia VTMS monitoring ships coming up the channel, continue to be manned by the pilots themselves in order to guide ships through the critical and narrower 'bars' on their way into the Pilotage waters. When the whole country was just getting glimpses about VTMS, Ko.P.T. and these Pilots worked in harmony to actually carry out remote guidance of ships coming up and down stream through the channel.

Further to the above, the recent years have seen newer navigational aids installed in the river, additional laptop aids provided for pilots, Channel navigable widths have dwindled, dredging expenditures gone down, night navigation started for a few less-critical areas and berths, mobile harbour cranes revolutionized the cargo handling speeds and reduced port stays, allowing more traffic in and out of the port and faster at it. At the time of writing this article, there are so many trial-basis berthing and manoeuvres being cautiously and diligently planned & carried out by the pilots in the newer Outer Moorings at Haldia, standing proof of the dedicated service. The Corona Virus of 2020 has brought to light to the human-kind the importance of the various legs of the supply chains which feed the peoples of the World. These River Pilots probably make up the least recognized sect of the supply chain, tirelessly working through the Global COVID 19

Pandemic. Even during the time of lockdown, the port shows record cargo handled figures which in turn reflects on the amount of manpower that went into it, of which Pilots have played a major pivotal role. The River Pilots need to often put themselves through an endurance test of piloting 78 Nautical miles in and out on slow ships and expose themselves to crew from around the world even before the Health officials can board the ship after she is placed well into the docks. Sometimes this could take up to 12 hrs of pilot onboard!

It is hence evident that the Pilots have so gracefully evolved with the growing demands of the modernizations and technological advancements and embraced the development goals laid out to them. I am proud to be a part of such a noble service which has not only stood the test of time and demands but also kept intact, the glory of a 350-year service, the Artistry and Mastery of the Lineage.

References, Excerpts and Further Reading:

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***And Quite flows the Hooghly - H.S.Sarkar**

*Three Hundred Years of Bengal, Hooghly and Calcutta Pilot Service - A.S. Nayyar, Branch Pilot

*Hazards of the Hooghly - Duncan Linklater (in his efforts to retrace the footsteps of his

ancestor, a Hooghly Pilot Capt. Arthur Duncan Linklater was a pilot [ca.1910-15.]

His memoirs available online:

https://www.quivis.uk/dum/hooghly/index_hooghly.html

*A few titbits of information from Capt B. Pakrashi (retd.HarbourMaster,Port)and Capt Ravi

Nijjer, Australia(had a brief stint at the Hydrographic Survey Service in 1962)

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Windsor,alfie@hmsconway.org

*'GreatRiversoftheWorld'-PeterCrookstonin'TheObserver'-coloursupplement13June

PM names Kolkata Port Trust after Dr. Shyama Prasad Mukherjee

Fundamentals of pilotage including training, licence & safety

By Capt. M. M. Saggi, Former Nautical Advisor to Govt. of India

Capt. M. M. Saggi

Introduction:
Purpose of this article is to share the fundamentals of pilotage, significance of pilot in port operation and other pilotage areas, importance of pilot training & licence, relevant training of concerned seafarers to ensure safety of pilots, a slight tweaking of regulations to ensure safer embarkation arrangement and an indicative way forward to achieve these objectives.

Importance of pilot:
Pilot is akin to an ambassador of the port. He is the first person to board an incoming ship. Ship's master and crew form their opinion about the port and port state based on this first impression. Every pilot needs to be conscious of this onerous responsibility.

Similarly, pilot gives the first-person account of ship, it's crew and condition of the vessel to the port and port state, based on which risk assessment is made and further measures are initiated to ensure port safety at ship's cost and Port State intervention, if required. Accordingly, it is also in the best commercial interest of ship to ensure that it puts it's best foot forward for safety of pilot during embarkation and disembarkation, safe navigation during pilotage and obviate avoidable inspection, delays and cost to vessel. Pilot plays a pivotal role in ensuring, not only the safety of ship but more importantly that of the port, channel, berths, equipment and other vessels in vicinity. This is the reason why pilotage has been made mandatory by authorities in almost all narrow waters and ports under their jurisdiction.

Significance of Master Pilot Exchange:
Pilot navigates the ship under over all command of the master. Master is quite competent to manoeuvre and navigate his ship but he does not have the in-depth local knowledge about depths, tides, currents, traffic and other hazards in the congested pilotage waters. Pilot is expected to have in depth knowledge of all local conditions and requirements and hence is in a much better position to communicate with port authorities, tugs and linesman. Similarly, while the pilot has detailed navigational knowledge about port, he is not familiar with ship, it's engines, steering, navigational, communication equipment and other peculiarities or limitations. Hence it is essential that master and pilot exchange all relevant information about navigation in pilotage area, immediately after boarding, to efficiently safely discharge their assigned responsibilities.

Pilotage area and traffic control:
Mandatory pilotage area is indicated in port, canal or narrow water entry requirements. Accordingly, pilotage pick up and drop locations need to be clearly marked on chart at the entrance. It is quite possible that in certain circumstances, pilot may not be able to board or disembark in assigned location. In such circumstances, adequate guidance needs to be given to ships by the traffic control, so that safety of navigation is not compromised. At times the ship master may be unclear about pilotage area instructions. In such circumstances, master is encouraged to contact traffic control on assigned channel to seek further guidance. It is essential that traffic control keeps a close watch on all traffic within its jurisdiction and cautions the masters or pilots if any potentially dangerous situation is developing. It is reiterated that traffic control needs to be conscious at all times that safety and environmental protection of concerned area is intrinsically linked with those of the ships navigating in its jurisdiction. Besides ship, the Port and port state too may have to pay a heavy price in terms of blocked channel, pollution and lost revenue if a navigational error is allowed to be committed by a ship under its control. It is best if port traffic control is supervised by experienced pilots 24X7. Ideally the pilots who are not physically fit to board the vessel but otherwise mentally alert and experienced in the concerned jurisdiction are most suited for port control assignments. In addition, the traffic controllers need to be suitably trained and certified for relevant Vessel Traffic Management Courses.

Pilot training:
Pilots need to be competent and familiar not only with concerned pilotage jurisdiction, its support and communication systems but also with different types of ship and their navigation and communication equipment including limitations if any. This calls for extensive training. Primarily pilot training has two basic components. Ship handling and local knowledge. It takes years to train and licence a pilot. This process can be reduced substantially by use of simulators for training. Simulators need to simulate ships of different types in different condition of loading and trim. Additionally, the simulator must also recreate realistic pilotage area back ground, channel, navigational marks and traffic etc in various conditions of light, visibility, rain, tides, currents and wind force etc.

Pilotage endorsement:
Normally a pilotage licence is endorsed for pilotage in certain limits within stated pilotage jurisdiction. There needs to be specific guidance about entry qualification requirement for pilots, process of training, assessment and issuance of pilotage licence. If a pilot has already acquired ship handling skills and local knowledge to earn his licence for a mentioned pilotage jurisdiction and desires to have a pilotage endorsement for some other pilotage area, he needs to be retrained and reassessed only in the local knowledge aspects prior to issuance of endorsement for that port. For the purposes of endorsement, requisite training can be imparted using a combination of simulators, class room and hands on training. Final endorsement can be issued by competent authority based on assessment carried out by designated examiners having requisite experience in the mentioned pilotage area.

Standards of pilot training and licence:
It is quite common for a pilot from one jurisdiction to seek pilotage licence for other location in the same country or even other shores. There is also a perennial shortage of pilots, in almost all pilotage areas, due to extensive training and fitness required for the job. Hence it is essential that as far as possible, common standards of training and certification of pilots is followed for all jurisdiction within the country. There is an urgent need to also harmonise the Standards of Training and Certification (STC) for pilots internationally in line with STCW requirements stipulated for seafarers. These requirements can be generic. Endorsement for a particular pilotage jurisdiction can be issued in a

manner similar to specific ship type endorsement to seafarers that is after prescribed service, training and assessment. It is advisable to write the training standards in detail on the back of licence issued, so that authorities in other jurisdiction can decide the extent of augmentation in re-training and issuance of pilotage licence for the new area besides local knowledge. To give more credibility to pilotage licence, it may be prudent if same is issued by maritime administration rather than port or local authority. It is also advisable to issue the licence in STCW format with requisite modification, only to the extent essential for pilotage certification. Like a seaman book or Continuous Discharge Certificate, it is best if all jobs carried out by the pilot are recorded in his pilot book. These measures will enhance the employment prospects of pilots nationally and internationally. Such service records will also make their absorption easier for other pilotage jurisdictions.

Training for emergency response:
A vessel may run aground, cause pollution or even be wrecked in pilotage area. It is essential that senior pilots holding management position such as harbour master, dock master and conservators etc are conversant with all relevant International Maritime Organisation (IMO) Conventions and local laws related to prevention, response and compensation regarding safety, security and environment protection.

Pilot ladder:
Every safety equipment has to be approved by maritime admiration. A Maritime administration can also accept safety equipment approved by other administration. For approval, prototype needs to meet performance standard. Pilot ladder and pilot transfer arrangement already forms part of the ship's safety equipment. However, for pilot ladder, a manufacturer certificate stating that it meets prescribed Safety of Life at Sea (SOLAS) Convention requirement suffices at present. Specific approval by maritime administrations, as applicable for most other safety equipment is not mandated for pilot ladders. Licencing of manufacture of pilot ladder and pilot transfer arrangement by maritime administration, would ensure that pilot ladder and pilot transfer arrangements are indeed meeting the SOLAS requirement and same is verified at the time initial procurement and installation and during each safety equipment survey. Inspection of pilot ladder and demonstration of correctly rigging the pilot ladder and transfer arrangement need to be made a mandatory part of every safety equipment survey. This can be further strengthened by unscheduled Port and Flag state inspections.

Indicative pilotage training and licencing procedure:

a. **Standards of pilotage Training and Certification (SPTC):** These need to established in consultation with senior pilots. The standards would require competency in various functions at different levels.

b. **Functions:** Functions may include:

   i. Coastal Navigation:
      1. Radar and ARPA
      2. GPS
      3. ECDIS
      4. AIS
      5. NAVAIDS on coast and in port,
      6. Vessel Traffic Systems etc.

   ii. Ship handling
      1. Rules of the road
      2. Manoeuvring in narrow, shallow and congested waters
      3. Pivot point
      4. Transverse thrust
      5. Bow thrusters
      6. Different types of rudders / propellers
      7. Trim and list effect
      8. Under keel clearance, squat and other shallow water effects
      9. Anchoring
      10. Tides and currents
      11. Wind, wave height and weather

12. Berthing / unberthing with and without tugs
13. Dynamic Positioning Vessels etc

iii. Communication:
1. VHF
2. NAVTEXT
3. Flags, signals
4. DSC

iv. Seaman ship:
1. Personal safety including life jackets, helmet, locating devices
2. Pilot ladder and embarkation arrangements
3. Ship types, construction, stability, especially when aground
4. Pilot vessel manning, safe design, safety equipment, first aid, communication, seeking lee, safe transfer & rescue

v. Local Knowledge:
1. Pilot boarding ground, pilot vessel capability, tugs & linesmen
2. Anchorages, Channel, berths, moorings, traffic, permitted speed, under keel clearance
3. Local tides, currants, winds and weather conditions
4. Communication protocols
5. Vessel Traffic Management Systems etc

vi. Legal Knowledge:
1. IMO conventions,
2. National laws and other commercial laws, especially wrt safety of navigation, port safety and security, limitations of liability, pollution response, salvage, wreck removal and compensation, hull machinery and third party liability insurance for ship, safe port, port insurance, port liabilities, Marine Environment Protection, Search Rescue and Loadline etc.

vii. Soft skills: Tact in dealing with master and bridge team, professional conduct, exchanging information, planning pilotage with master and bridge team and respecting master's authority while having full control of navigation of the vessel during pilotage.

c. **Level:** Levels may include basic pilotage, full tonnage pilot and management level

d. **Induction:** There can be various induction streams for pilotage training e.g.:
i. A master mariner,
ii. An ex naval officer,
iii. A nautical officer after operational or management level certification
iv. A nautical officer after completing pre sea training
v. A fresh graduate without any maritime training.

e. Orientation: Depending on the induction stream and competencies required for pilotage licence, gaps needs to be identified and filled in, using structured training such as pre sea, hands on, simulator based training and class room training followed by a comprehensive written, orals and simulator-based assessment for generic pilotage competencies and local knowledge.

f. Modular training: A pilot may also be required to undergo four basic courses as prescribed for seafarers.

Training of seafarers involved in Pilot boarding:

All seafarers associated with pilot embarkation and disembarkation need to be familiar with pilot ladder construction rules, pilot embarkation rules and precaution for rigging the pilot ladder and embarkation arrangement for their level of competence. Management level officers may be specifically trained to provide lee to pilot vessel and correct use of engines and maintain ship heading at slow speed over water without endangering pilot vessel or the pilot who may have fallen in the water.

Pilotage awareness & hazards associated to Port & ministry officials:

Senior officials of the port and ministry, not having maritime background need to be apprised about importance of pilots for safety of ship and port, hazards associated with the profession, significance of pilot training, necessity of suitable compensation and additional insurance to attract and retain talent.

Induction of Near Coastal Vessel (NCV) and Inland Vessel (IV) certificate holders as pilots:

NCV and small vessels and IV vessels can be piloted by suitably trained and qualified NCV and IV masters.

Conclusion:

- Pilotage is a necessity not only for safety of ship but also for safety of port, channel and other pilotage areas.
- Pilotage training needs to be structured and prescribed depending on the induction level.
- Pilotage training and certification needs be harmonised at national level and in due course internationally.
- In Pilotage licence, there needs to be a provision for local area endorsement so that pilots having licence for one jurisdiction can be safely and efficiently licenced to pilot vessels in other jurisdictions.
- Pilot experience may be recorded in their service book mentioning various tasks performed on different type and sizes of vessel in different jurisdictions, in various conditions of light, visibility and weather.
- It is in larger interest of the all ports, calling ships, Port States, pilotage jurisdictions and pilots to reform and harmonise pilot training, certification and improve pilot safety.

1000 COMBINATIONS AROUND
Which one is correct?

By: Arie Palmers (reg. Pilot)

Introduction

Dear reader,

Before you, you see my third article on pilot boarding arrangements. After my two previous articles ('1000 ways to secure a pilot ladder' and '1000 ladders around', I have received a lot of feedback and also questions to get deeper into the matter of combinations and embarkation platforms.

Since the last two articles were published a lot has happened, more and more shipping companies as well as pilot associations worldwide are getting more aware of pilot boarding safety issues and the way to get pilot boarding arrangements safe and compliant. As you might know, sometimes it is a very easy fix.

Concerning embarkation platforms… to get them compliant it often takes more effort: some constructional features must be changed; class agencies will have to approve etc. etc. but the costs to get it right will not be that high.. In this next article I would like to show you the rights and wrongs of these pilot boarding arrangements and what can be done to make them compliant as easy as possible.

In the next chapters we will also, as in the previous articles, get into the rules and I'll try to explain as good as possible what is correct and what is not correct, of course illustrated

Non-compliant embarkation platform (courtesy of #dangerousladders)

with pictures out of my own database and from the database of facebook's "dangerousladders".

In this article names of shipping companies/ships and manufacturers will only be displayed for educational purposes, it's not my goal to favor or bash around any company.

Hope you will enjoy reading this article!!

When to rig a combination or a single pilot ladder?

Some vessels present themselves with a single rigged pilot ladder and some vessels present themselves with a combination, or embarkation platform. Of course, there is a reason for these two different types of pilot boarding arrangements and in this chapter, I will explain why these two arrangements exist.

In SOLAS ch. V reg. 23 it is stated when to rig a normal pilot ladder and when to rig a combination:

3.3.1: a pilot ladder requiring a climb of not less than 1.5m and not more than 9m above the surface of the water…….

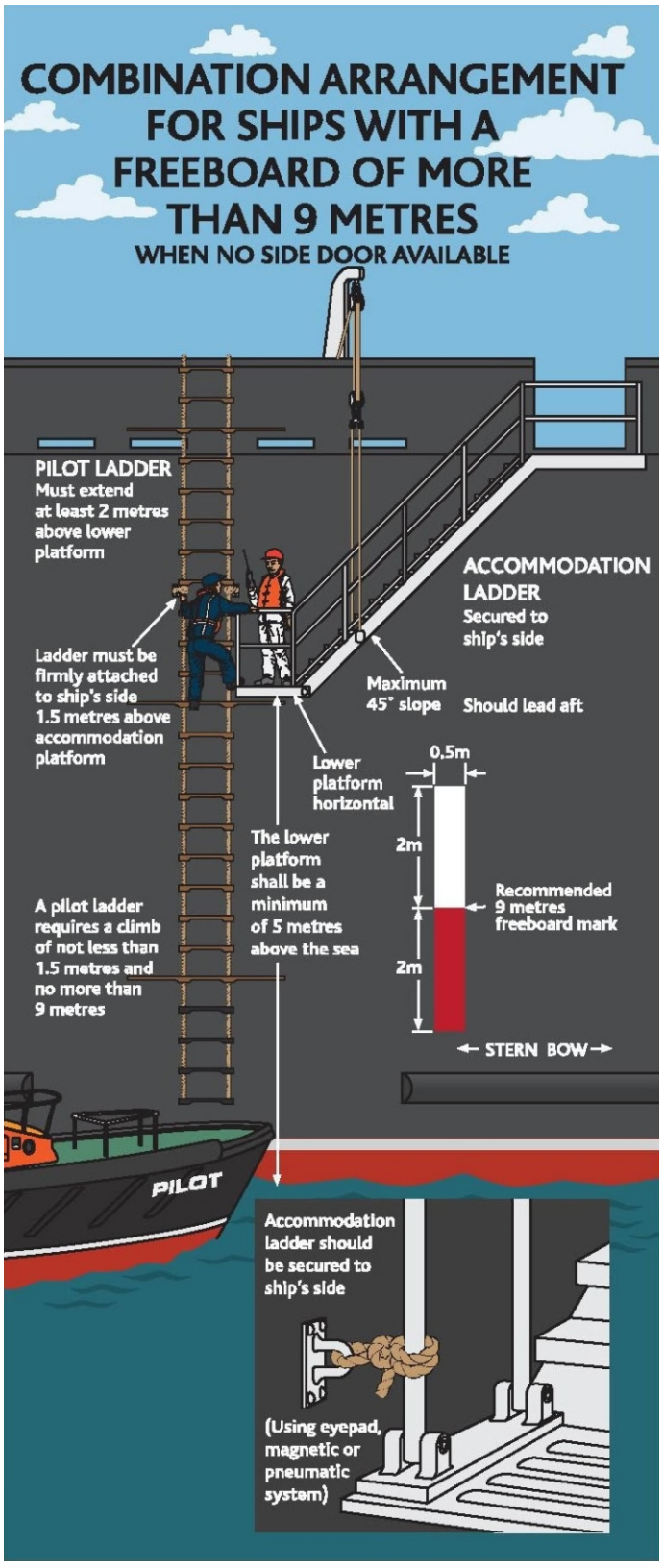
3.3.2: an accommodation ladder in conjunction with the pilot ladder (i.e. a combination arrangement) or other equally safe and convenient means, whenever the distance from the surface of the water to the point of access to the ship is more than 9m. These simple rules tell us when the distance from the water to the pilot entry point is under 9 m you can rig a single pilot ladder and when the distance is more, a combination must be used…

Non-compliant pba

In this photo of a pilot ladder, you can basically see in one glimpse that in this case the vessel should have rigged a combination rather than a single pilot ladder or should have increased its draught. Wonder why? Let me explain. Right next to the rigged pilot ladder you can see a white and red figure displayed on the hull. This is what we call the pilot mark. My good friend and co-author, deepsea pilot Kevin Vallance has written an interesting article on the origins of the pilot mark, you can find it online by following this next link: https://www.marine-pilots.com/article/13336.

Basically, this pilot mark displays exactly where the nine-meter mark is on this vessel. Exactly at the dividing line between the upper and lower half's of the pilot mark is the point of 9 meters above the water surface. Again, this has nothing to do with freeboard: maximum climb from water level to entry point shall not exceed nine meters. Unfortunately, in the well-known pilot ladder poster this has been displayed incorrectly as you can see in the photo below which is a small piece of the pilot ladder poster

In this part of the pilot ladder poster there is mentioned that the maximum climb shall not exceed 9 meters, which is not correct as we know now. This would mean that when a pilot boat for example requests the ladder to be rigged at a height of 8 m above the water, you would be allowed to climb an additional 9 meters on top of that.



Again, can't repeat is often enough, maximum height for a single pilot ladder shall not exceed 9 meters from water surface to pilot access point. It all has to do with the acceleration should you fall from the ladder, after all we climb unsecured, so this must be correct!! When you drop to the earth your acceleration will be 9,81 m/s2 until you have reached maximum velocity. In the table below you will find some examples of falling from different heights and I assumed the weight of the person falling of 80 kg.

Heights in m	Speed in km/h
1	15,94
2	22,54
3	27,61
4	31,88
5	35,64
6	39,04
7	42,17
8	45,08
9	47,81
10	50,4
15	61,73
20	71,28

This table shows exactly what will happen to you, dropping from different heights, even dropping from a height of only 3 meters can really ruin your day, but as starting point scientists concluded that should you fall from a height of more than 9 meters you will most surely sustain fatal injuries. Again the 9 m is vital! Falling from lesser heights can cause very serious injuries but you should be able to survive as they state.

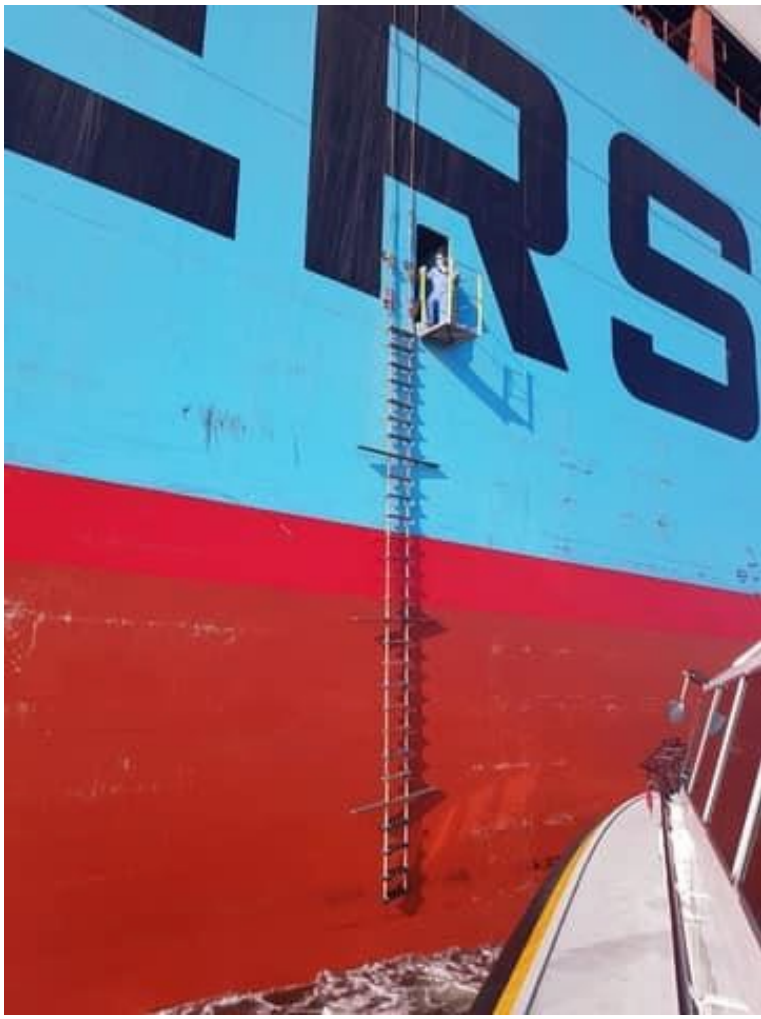
Back to the pilot mark. We know already that the separation of the white and red indicate the 9 meter mark, some vessels and shipbuilders however still seem to think the pilot mark is merely an indication for the pilot boat where the ladder is situated, but as we know now this is not the case. In the photo above we see a pilot mark that has been put

at the wrong position, probably someone thought is was a good idea to have one here, maybe because it looks good. This vessel, looking at her draught and height from keel to deck, it doesn't even need to have one.

Having a pilot mark displayed on the correct position of the ship is a very good asset and the approaching pilot launch can very easily asses whether the single pilot ladder is the correct pba or a combination should have been rigged.

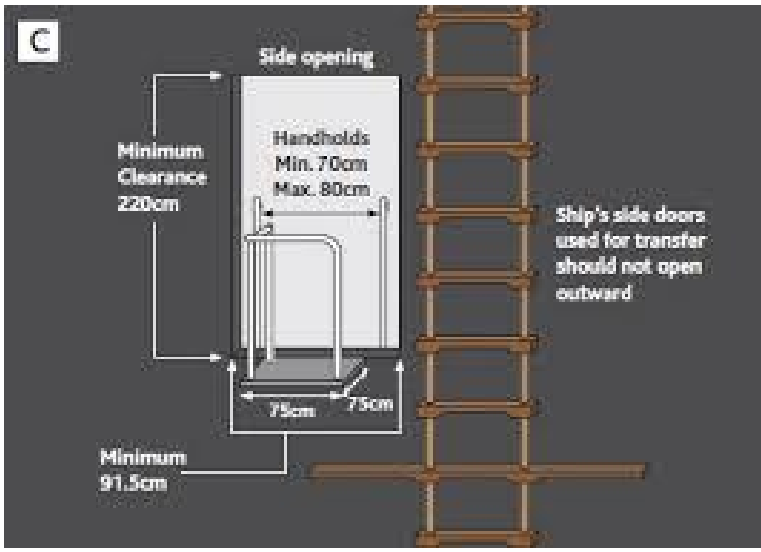
In the photo on the previous page we see a vessel which has at least a distance from the water surface to the pilot door of 11m, presenting itself with a single pilot ladder. We have seen this is an absolute no go. The ladder on its own already has a length of approximately 9,6 meters at least plus the requested rigging height above the water to get the pilot tender alongside safely, which is 2 meters in the region where I work. Vessels fitted with a pilot door usually have no means to rig a combination. What the vessel should have done, was ballasting till an acceptable height of the pilot door above the water has been obtained, meaning: less than 9 meters.

On top of that we know from one of my previous articles that the ladder has to be secured to the ships hull at 1.5 meters above the platform (SOLAS ch.V V reg 23 3.3.2.1), which has been done as you can see but also (there's always a but…) the ladder should run



distance water- pilot door exceeds 9m

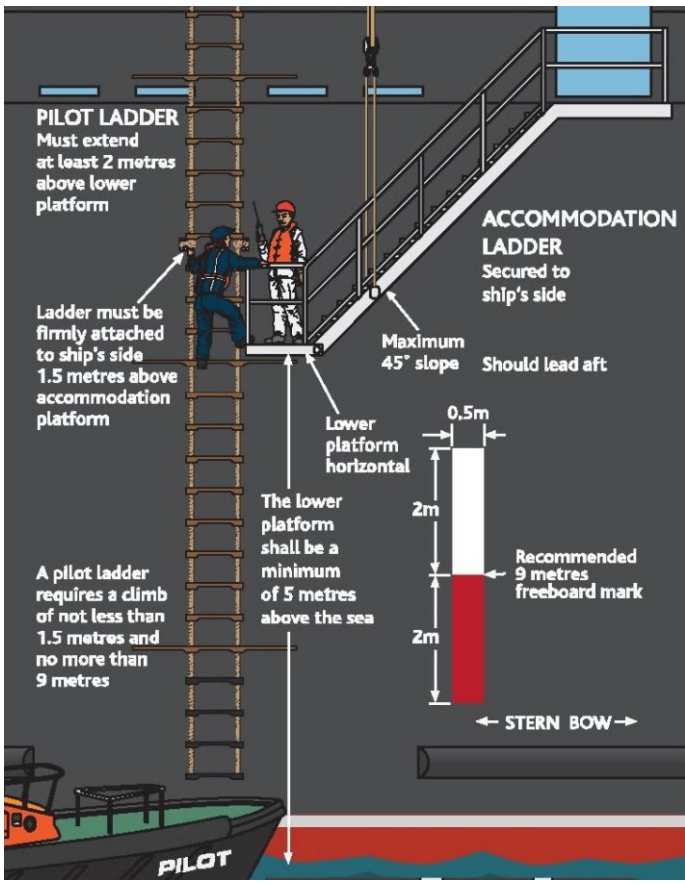
2 meters past the platform (IMO A.1045 3.6: …… and should extend at least 2 m above the lower platform.) and that's not the case here. The drawing below, which is a section of the pilot ladder poster shows how this setup should be done correctly.



Another incorrectly positioned pilot mark

Combination arrangement

In the previous chapter we have seen when a single pilot ladder can be rigged and when a combination must be rigged. In another section of this article, we'll discuss a different type of combination: the embarkation platform. In this section we'll focus on the so-called standard combination arrangement.



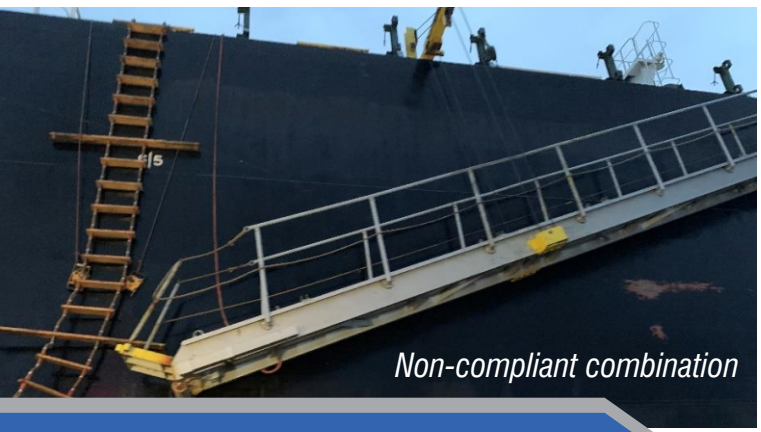
Section of the pilot ladder poster

Here we again see a part of the pilot ladder poster, showing us a drawing of how the combination should be rigged. Some pilots demand a guy to assist on the platform, as is displayed on the poster, but since this poster and IMO A. 1045(27) are recommendations, it is not mandatory for any crewmember to stand on the platform. Looking at the picture we can see the assisting responsible officer is wearing a life jacket but is not secured in any way by means of a safety harness. Dangerous practice to stand on a small platform (width at least 600 mm, same as the accommodation ladder: IMO A.1045(27) 3.2) without being secured, especially in adverse weather conditions… And as far as I am concerned, he could hamper the stepping over from ladder to platform. Anyway, I suppose the color of his coveralls is optional and free of choice…….

We can also see the pilot on the ladder stepping upwards from the ladder to the platform, again a bad practice, he should only have to step sideways. As we have seen there are some mistakes in the poster: the climbing sentence printed above the pilot launch is wrong…

SOLAS V ch 23 also tells us requirements in how to rig a combination. In the previous chapter we already saw some regulations passing by 3.3.1 and 3.3.2)

3.3.2.1 tells us that the pilot ladder and manropes (manropes only on request of the pilot 7.1.1!!) must be secured at a point 1.5 m above the lower platform. Without these securing methods, the ladder can swing free and of course that is a dangerous practice. 3.3.2 tells us the platform also must be secured to the ship's side



Non-compliant combination

This photo shows us a few wrongs in this combination: the ladder is not secured 1.5 m above the platform but at about 60cm. You might think: so what?? Who cares?? Well I do of course. When the ladder has been secured at a point to close to the platform, it will obstruct your access to the ship. Worst cases would be losing your grip an falling back to the pilot launch (seriously injured) or into the water (seriously injured and wet).

The horizontal distance from the pilot ladder to the platform looks all right. Of course there is a rule for that as well. IMO A. 1045(27) tells us: the horizontal distance between the pilot ladder and the lower platform should be between 0,1 and 0,2 m. Well, this makes sense: just a small sideway step from ladder to platform, after all we are no acrobats. Big distances from ladder to platform can easily again result in an accident.

Furthermore, we can see in the photo that the platform is not horizontal. IMO A. 1045(27) tells us the platform should be in a horizontal position (makes sense doesn't it) and secured to the ships side when in use. The lower platform should be at a minimum of 5m above sea level. This is done to prevent the combination and pilot launch ever touching eachother. Bigger heights may be required by the pilot boat.

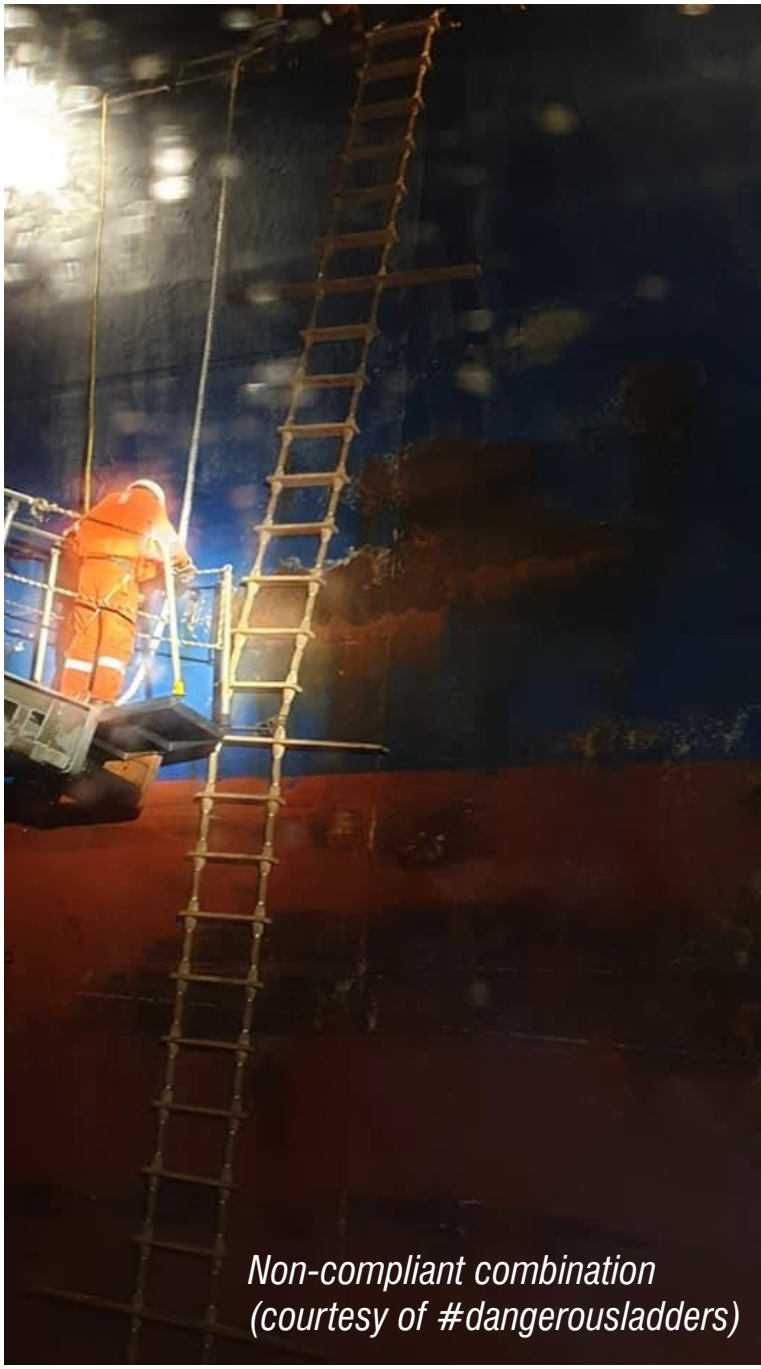
In the first photo on the next page we can clearly see a badly rigged combination:

- platform not horizontal
- platform not secured to the ship's hull
- ladder not secured to the ships hull at 1,5 m above the platform
- retrieval line not rigged properly (we have discussed this in a previous article: retrieval line is optional but when used it must be rigged at or above the bottom spreader and lead forward so it can never get caught to the pilot launch)
- we can also see it is a way to big step from pilot ladder to the platform, this photo shows very well why the distance from ladder to platform must be 0,1-0,2 m

Non-compliant combination

The direction of the combination is also important. SOLAS ch.V reg 23: 3.3.2 .....The accommodation ladder shall be sited leading aft. Now why is that?? Suppose anything goes wrong with this combination, for example the wires should break. Should the pilot boat be situated under this combination, the broken combination would end up on top of pilot boat and the people on it.

Wires can break and situated leading aft; the dropping combination will move away from the pilot launch instead of on top of it. Should you be on the combination when it breaks.... Well good luck.... Injuries will occur of course....or worse...



Non-compliant combination (courtesy of #dangerousladders)

This photo is a good example of what will happen when the ladder is tied to the platform: the ladder is not firmly against the ship's hull; steps are not horizontal, and the combination can swing free. The guy working on the combination when this photo was

taken, isn't wearing a life jacket or safety harness, tells us something about the safety culture on this vessel. SOLAS ch V reg 23 tells us in 2.2: personal engaged in in rigging and operating any mechanical equipment shall be instructed in the safe procedures etc etc…

As from 2012 when IMO A.1045(27) came into force, the maximum slope of the accommodation ladder was decreased from 55 degrees (IMO A.899) to a maximum of 45 degrees. To me this seems obvious: the steeper it gets, the harder it gets, and will lead to an increased risk of slipping away.

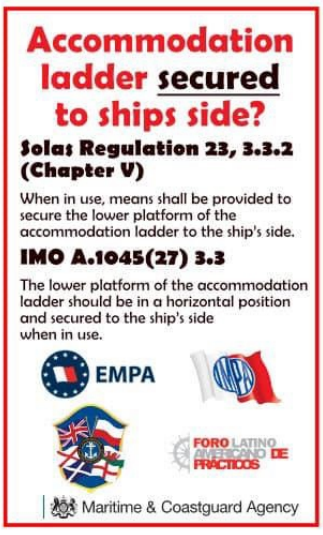
To be able to transfer yourself safely from the ladder to the platform you need stanchions to be able to grab during this step over, as stated in IMO A.1045(27) in rule 3.5: the ladder and platform should be equipped on both sides with stanchions and rigid handrails, but if hand ropes are used, they should be tight and properly secured. The vertical space between the handrail or hand rope and the stingers of the ladder should be securely fenced.

Of course you need fencing when you get on to at platform 60x60 cm dimensions, imagine the ship rolling and pitching due to swell and you would be there without anything to hold on to, again a dangerous practice, but very often we see at least one stanchion is missing. Solution is to just tell the vessel went wrong and come back for round 2 about ten minutes later. I have told before that a lot of non-compliances are very easy fixes and can all be sorted within a few minutes. Even though of course it is rather silly not to put stanchions, what were they thinking?

This photo shows no stanchions on the platform, how to cross over? At least it will be very hard to reach the platform in this case: platform is in front of the ladder and that will make getting onto this platform nearly impossible. Also ladder and platform are not independently of each other secured to the hull, and as you can see on the photo the ladder is not firmly against the ship's hull as required.

Non-compliant combination, (courtesy of #dangerousladders)

In my opinion ask them to get it sorted and come back after 10 minutes..



ALL INDIA MARITIME PILOT' ASSOCIATION, INDIA

All India Maritime Pilots... · 9m
AIMPA continues to train future Chief officers. Great session with students of Massa Chennai Phase II class.
Very well delivered lecture by Capt Girish Chandra, expr Pilot at Sikka. Very Informative.
Thank you Capt Vasudevan and capt dr. suresh Bhardwaj for this opportunity.

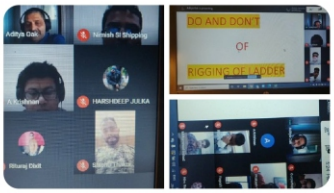
All India Maritime Pilot... · 29m
When one man on ship learns about pilot ladder rigging, many lives will be saved.

Aimpa's yet another training session with 100+ AMET pre sea cadets oit of which 18 were Girls. Happy tomimpart knowledge.
Thank you Capt Karthik, Dean - AMET and Capt Oak for fantastic lecture.

All India Maritime Pilot... · 13m
Whoever is involved with Pilot ladder rigging on board, AIMPA will train them. One rigger learns, one life is saved. AiMPA trained 55 pre sea cadets of ARI realising cadets and ratings tie the ladder and do the maintenance.
Thank you Capt Awasthi, principal for the opportunity

All India Maritime Pilots ... · 4h
ट्रेनिंग वहा सीफेअरर जहा

AIMPA briefs joiners of two vessels of Seven Island shipping on importance of Pilot ladder safety. Feedbacks are very encouraging and we'r just happy the reach out to keep world pilots safe.
Thank you Capt Philip Mathews, Capt Nimish Mhatre & Team SIS.



AIMPA takes a lead in training at MTIs and at shipping companies premises. The pilot ladder issues are at large on all kinds of vessels and with all nationality crews, hence for time being AIMPA has taken up the Pilot ladder safety awareness program and is fighting for righteousness with the entire industry. We have taken to the cause of making things correct with ship management companies by making it a right supply but the issue of training to crew on board is such on a magnanimous scale that it is difficult to make a difference overnight. AIMPA now has taken to the training of candidates in Maritime Training institutes for the right cause, although progress is slow but we are happy that it is definitive. we thank all MTIs and shipping companies for accommodating our request for letting us hold the special class with seafarers. One seafarer learns how to rug a ladder correctly, he saves many lives.

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