

Shiphandling, Masters, pilots and more

The Nautical Institute
annual conference
2019

Capt Alan Loynd

FNI

The Nautical Institute's annual conference was held at the Royal Hong Kong Yacht Club, a new venue featuring stunning views of the harbour. Attendance was excellent – indeed, the conference was over-subscribed with more than 130 people signing up for the event, including delegates from the United Kingdom, Singapore, Sri Lanka, India, Australia, USA, South Korea and China. The hard-working local organising committee were ably supported by John Lloyd and his headquarters team, notably Magdalena Kolodziej who worked tirelessly to ensure the success of the event.

Branch chairman Amit Bhargava welcomed the delegates and thanked the sponsors before introducing NI President Capt Nick Nash. Capt Nash gave an overview of the work of The Nautical Institute, updated us on major issues and shared his ideas about the future.

Hong Kong's Director of Marine, Ms Agnes Wong Tin-yu, then described Hong Kong's place in the shipping world, and the many advantages enjoyed by the maritime cluster in the territory. We are grateful to her for agreeing to speak to us so soon after she was appointed to the post, and we look forward to working with her in the future.

The Royal Hong
Kong Yacht Club



Consequences of failure

Our first session was on the consequences of shiphandling failure. Capt John Taylor from Steamship Mutual gave some telling examples of the consequences when bridge teams fail to properly use the tools they have at their disposal. He used interesting case studies to illustrate his points. In the first, a container ship ended its passage plan at the pilot station and did not carry out an adequate exchange of information with the pilot. The pilot himself had not undergone any refresher training since he was appointed and had a poor appreciation of the vessel's manoeuvring characteristics, while the bridge team took no action when they disagreed with the pilot's decisions. The port penalised pilots who were slow in berthing, so the approach was too fast and resulted in substantial damage to the berth and the container cranes lining the wharf.

In another example, a ship had a good passage plan, but this was disrupted when the port moved the pilot boarding station. The Master was unfamiliar with the ECDIS on the ship, and some alarms were turned off. The resulting grounding was spectacular. Capt Taylor asked if we are becoming too reliant on ECDIS.

Capt Ashley Singleton of Chevron discussed special considerations when handling large tankers, concentrating on specific ports and offshore berths used by his company's ships. He stressed the need for adequate tugs and dedicated teams who know what they are doing at every stage of the process.

Ron Clark, Admiralty Manager at Reed Smith in Hong Kong, covered the legal consequences of shiphandling incidents, looking at Admiralty courts and apportionment of blame in collisions. He described a collision off a South American port and stressed the need to keep clear of vessels that are picking up a pilot. Each case turns on its own facts and is judged on its merits, but the importance of Colregs Rule 2 (*'Nothing in these Rules shall exonerate any vessel, or the owner, master or crew thereof, from the consequences of any neglect to comply with these Rules...'*) can't be underestimated.

Heavy weather

Our next session concentrated on shiphandling in heavy weather. Capt Balraj Nair, a serving Master with Fleet Management, urged delegates to:

- Know their ship and its rolling and pitching characteristics
- Identify refuge areas
- Always select a suitable speed and heading.



He gave excellent examples of how to do these things, and included a list of preparations for heavy weather, lashings and how to manage stability and ballast when necessary. Capt Nair gave clear descriptions of synchronous and parametric rolling and how to disrupt them, talked about surfing down large swells and the danger of broaching, and described how to turn a ship in heavy weather. He stressed that modern seafarers are losing their knowledge of the sea and its moods because they spend too much time in the air conditioning. Interestingly, he stated that obtaining accurate weather information is vital, and basic weather forecasting is insufficient in the modern world.

The theme of weather prediction was continued by Tony Petronio of StormGeo, who talked about weather routing and how predictions at least three days ahead are vital to avoid heavy weather. He discussed the need for routers to consider a ship's priorities and understand its roll period and other characteristics. After a review of world weather patterns and the changes which are taking place, he gave a case study involving Typhoon Maria and the forecasts from the Japan Meteorology Agency and the Joint Typhoon Warning Centre. He demonstrated that sometimes there are alternative routes which must be considered, and it is not always clear which is the best.

The session concluded with Ashok Kumar Sharma of Wärtsilä discussing ways in which digital technologies can support command decisions in shiphandling. As a former seafarer, Sharma was ideally placed to cover this topic in a practical way. Starting with ECDIS, radar and communications



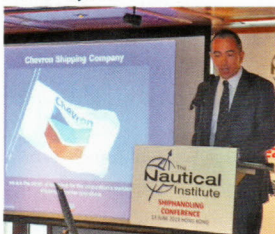
Ahmit Bhargava



Agnes Wong Tin-yu



John Taylor



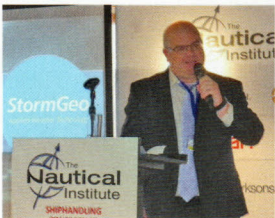
Ashley Singleton



Ron Clark



Balraj Nair



Tony Petronio



equipment, then adding shoreside tracking and voyage planning, he showed how they can facilitate safe and efficient shiphandling. He advocated new technology that permits automatic voyage planning combined with weather routing. This can save time and prevent weather-related incidents, so long as you have a good connection, he said.

Training

After an excellent lunch, delegates were treated to a short presentation by Benjamin Wong of InvestHK, who explained the importance the government places on the maritime cluster, described the advantages of Hong Kong as a place to do business, and briefly outlined the opportunities available within the Greater Bay Area.

We then turned our attention to shiphandling training. Nick Nash again took to the podium, this time in his role as a senior Master with Carnival Corporation. He described bridge manning and the division of responsibility on a modern passenger ship. Shipping can learn from aviation and adopt function-based procedures, rather than the top-down model traditionally employed at sea. He explained how such procedures are better at detecting and managing errors, and outlined the PACE (Probing, Alerting, Challenging, Emergency warning) approach to bridge operations. Carnival is using these methods to 'turn port approaches and berthing into a science', he said. The company is publishing the results so others can learn about ports they might not have visited.

Capt Kersi Deboo, Director of the Anglo-Eastern Maritime Training Centre, then spoke about the benefits of simulator training. Few mariners will



have an opportunity to practise their shiphandling at sea, but a simulator permits immersion in realistic scenarios where the common causes of shiphandling failures can be addressed. In particular, he cited simulators as being excellent for teaching people spatial awareness and giving them an understanding of the effects of weather and currents.

Stephen Gosling of Videotel gave an interesting presentation on modern audio-visual training techniques, describing the change from traditional training videos to more interactive methods that appeal to younger seafarers and can be useful for self-assessment. He set up a virtual reality booth in one corner of the conference room so delegates could immerse themselves in modern technology.

NI CEO John Lloyd described The Nautical Institute's DP accreditation scheme. This has been a tremendous success, as readers will know, and John gave an excellent description of how it has benefited several generations of shiphandlers in the offshore industry.

Pilots – the ultimate experts

The final session of the conference was led by a panel of pilots – possibly the ultimate experts on shiphandling. Capt Jason Choi, Vice President of the International Maritime Pilots Association, described the difficulties of handling modern ships. These have poor course-keeping ability and insufficient power if they have been optimised for economic steaming, he said. His home port of Incheon has a tidal range of 10 metres and limited room to manoeuvre. That problem is widespread, he said, because ships are getting much bigger but ports remain the same size!

We then heard from Capt Wong Xiao-tian, a senior pilot in Tangshan who is an expert at berthing Valemax bulk carriers on an exposed jetty with currents of up to 2 knots. He described the problems of dealing with large fishing fleets in the area and co-ordinating up to seven tugs and more than 100 people who are involved in every berthing job.

Capt Cai Bin is a senior pilot in Shanghai. He discussed the berthing of large passenger ships – up to three a day – in a river with strong currents. He took issue with the manning arrangement utilised by Nick Nash, saying the pilot should be seated at the front of the team so he can see what is happening. He claimed some passenger ship captains lack shiphandling skills,



Ashok Kumar Sharma



Benjamin Wong



Kersi Deboo



Steve Gosling



Jason Choi



Wong Xiao-tian



Cai Bin



Jillian Carson-Jackson

and suggested some of them spend too long in the simulator and not enough time on the controls of a ship. It was an interesting paper, and his difference of opinion with Capt Nash was a fascinating topic for debate, but time did not permit us to go into detail in Hong Kong.

Capt Luo Jin-song is a senior pilot in Shenzhen. He described the difficulties of moving 20,000teu container vessels through the Tonggu Channel to his port. Again, he mentioned the poor turning and stopping abilities of large modern container vessels, although he conceded that some are better than others. Windage, of course, is a problem on all of them. When you include a current running across the channel and the presence of a large fishing fleet, the problems are multiplied.

Finally, Capt Stephen Wong of the Hong Kong Pilots Association gave an excellent description of the changing pilotage techniques that have been adopted in Hong Kong to deal with modern vessels, particularly the world's largest container and passenger ships.

At this point it seemed we had defined the problems of shiphandling in the modern era and the tools available to assist with training, and if we had been granted a few more hours we could have reached some useful conclusions about a sensible way forward.

At the end of the session, delegates were asked to rank the main causes of shiphandling incidents in an anonymous poll. The majority cited lack of effective shiphandling training as the most prevalent cause. Unfortunately, we were only 10 minutes away from our deadline, so it was left to John Lloyd to give a masterful summing-up of the conference before we adjourned for the cocktail party.



Attendees at the AGM