

COMPETENCIES OF A FUTURE MARINER

Hong Kong Branch seminar

Once again the Hong Kong SAR Branch were aboard *Star Pisces* for our biennial seminar, and 85 delegates enjoyed an interesting and thought-provoking day.

It has become a tradition for Hong Kong's Director of Marine to give the opening address at our seminars, but we suspected that Ms. Maisie Chung might decline because she had been in the job less than one month. She was equal to the challenge, however, and gave an eloquent overview of the situation and challenges in Hong Kong. She also won friends when she described government's appreciation of the professional endeavours of the local branch of The Nautical Institute.

STCW and competency

Arthur Bowring FNI of the HK Shipowners Association gave the keynote address, which he described as a 'philosophical view'. He opined that STCW is more about qualifications than competence. We can do more to raise the level of competency by insisting officers have more experience before they are promoted, and that they are properly assessed before promotion. He also asked whether we now need different training and competencies for the many different and complex ship types which are evolving.

He also looked at the possibility of autonomous ships and described the dangers when unmanned vessels met ships controlled by humans. Ideally, automation should assist the seafarer, not act as a distraction. Seafarers must no longer be reduced to the role of 'software servants'. If Apple can make complex devices which can be used by a novice without reference to a manual, why can't maritime manufacturers do the same, he asked. Where are our intuitive controls, and why can we not amalgamate alarms and present them sensibly?

eNavigation

Javier Yasnikouski, an Argentinian e-navigation specialist working at IMO in London, explained his preferred definition of eNavigation as enhanced navigation, and said IMO is constantly asking what the mariner needs in order to perform better. He described the use of gap analysis to find potential eNavigation solutions, and the constant updating of the IMO Strategic Implementation Plan (SIP). The SIP has 18 goals, including harmonised bridge design, standardised ship reporting and the development and standardisation of S-mode technology. Among the aims of the SIP are standardisation, harmonisation, reduced familiarisation requirements, better facilitation



Ms Maisie Chung (R) , Director of Marine



The panel in discussion



A lively Q&A session



Enjoying the reception after the conference

of training and the reduction of the administrative burden and fatigue.

Gerry Buchanan, Managing Director of LISCR Far East, discussed the changing regulatory environment. He began by looking at what can go wrong on board, and asked whether eNavigation will prevent tragedies like the recent cases of *El Faro* and *Flinterstar*. In a telling comment which echoed Arthur Bowring, he asked why ECDIS has to be so complicated when Apple have a simple app which does the same thing much more easily? Reflecting that ECDIS was implemented before it was fully fit for purpose, he pointed out that eNavigation is going to become even more complicated, so it must be introduced sensibly, and information overload must be avoided. Training will be vital to the implementation of e-navigation, and may even become the biggest item on a shipping company's accounts.

Mr Buchanan also predicted that the Electro-Technical Officer (ETO) may become the most important man in the deck department – but asked how this position will relate to the engine room? Will Chief Engineers have the skills to direct an ETO, or will the position evolve into a senior rank in its own right? Finally, he pointed out that the US Naval Academy is once again teaching celestial navigation to its officer candidates, and asked whether they know something we do not!

Ship design

Ivar Håberg, head of the hull and stability section of the DNV GL Approval Centre in Shanghai, took a detailed look at future ship design and ultra-large container vessels. He discussed the physical constraints to further growth, particularly crane outreach, water depths and air draft. He pointed out that even greater lengths can be achieved, so long as the wheelhouse is moved forward. This gives better visibility, but much greater vertical accelerations in a seaway. In his opinion, beam and draft are already nearing their logical and practical maximums, but lengths will increase.

John Wilson, the American Club's Director of Technical Services, Asia, spoke about the risks associated with new technologies. He began by pointing out that shipping has become safer over the past 100 years. When *Titanic* went down there was one ship loss per 100 ships per annum, but today the figure is 1 loss per 670 ships per annum. Nonetheless, accidents continue to happen, and the speaker took us through a large number of case studies where modern technology had contributed to the loss or damage of a vessel. He considered the industry's vulnerability to cyber attacks, and discussed risks such as poor training in the use of new equipment, and the fatigue which is a factor on so many ships today.

Looking for a solution

The final session of the day began to look for solutions to all the problems defined in earlier papers. Pradeep Chawla FNI, Managing Director of QHSE at Anglo Eastern Group, gave us some real-life observations about the industry. He pointed out it is impossible to tell a 35-year-old Master who has never experienced a GPS failure that he needs to keep practising his celestial navigation. He also revealed that the average Master receives 1900 emails every month, so his time is limited. There has also been a breakdown of the traditional hierarchy, and whistle-blowers 'have changed everything'.

Captain Chawla also discussed cyber-security issues and opined that 'the futurists cannot be stopped' and change will continue. He talked about the potential productivity gains from big data, but pointed out that as yet, we do not even have a database for all marine accidents and near misses. Shipping has the choice of embracing big data or waiting until it is forced upon us.

The speaker had no doubt that seafarers' complaints about over-regulation are justified, since there are now more than 6000 pages of IMO regulations with which the Master is expected to be familiar. He also pointed out that there are too many record books. It is time to let the 'black box' do most of the statutory recording and reporting.

Among the competencies required in the future should be:

- The ability to process large amounts of data (but how do we train for this?);
- The ability to focus on critical issues;

- The ability to work with remote teams;
- Assertiveness, particularly with uniformed pencil-pushers from ashore;
- The ability to know the limitations and dangers of automation;
- The ability to manage change;
- The ability to learn continuously;
- The ability to cope with stress;
- Effective communications skills;
- Leadership.

To achieve these, we should be looking towards:

- Psychometric testing (although Capt Chawla did include the wonderful line 'it doesn't matter if you don't like my personality – I have several more!');
- Blended training;
- Outcome-based education;
- Greater focus on the human element.

Captain Chawla concluded by stressing that human factor competencies are vital for the progress of our industry.

Onboard education and training

Dr Chris Haughton FNI, a past member of the NI Council, spoke as a representative of GlobalMET, the international association for maritime education and training establishments. He chose to concentrate on training aboard ships rather than ashore.

Dr Haughton was broadly in agreement with Captain Chawla, and pointed out that the rate of speed of change in our industry is increasing, while the shelf life of knowledge is getting shorter. There is no more time for senior officers to think, even though 'thinking is an

investment'. He questioned the effectiveness of the present inspection regime, and stated that training should not be about passing inspections, but about training effectively. The present 'sticking plaster' remedies which are applied when onboard training appears to have failed are only making things worse. He concluded by pointing out that continuous and effective training has to become embedded in our culture, and we could learn valuable lessons from other industries.

The mariner's view

Finally, Captain Norman McNee gave the seafarer's viewpoint. He is perhaps not a typical modern mariner, having worked for the same high-quality family shipping company for the past 36 years, but he has been intimately involved in mentoring the company's cadets and administering successful training schemes. He was also the recipient, in 2013, of the HK Marine Department's Bravery Award for his successful rescue of two hapless injured yachtsmen in stormy conditions south of Fiji. Before discussing the future, Captain McNee described his own career, which has been rewarding and distinguished. He would make an excellent recruiting manager for the merchant navy, although the sad fact is that today's cadets may not be able to enjoy the same type of career.

Echoing Chris Haughton, Norman cited the need for better on-board training, but he also mentioned the need for better training of catering staff. In the high-stress modern shipping environment, good food can be the key to good morale, but he claims that standards are 'variable'. I suspect he was being polite. He also pointed out that the ISM Code has had a very negative effect on morale, which is something the regulators would do well to consider. Finally, he pointed out that IMO must consult seafarers in the future and stop being led by equipment manufacturers. Very good points from a consummate professional whose views deserve our attention.

Vikrant Malhotra MNI, our branch chairman, gave an excellent summing up. He noted how many speakers had expressed the hope that Javier's definition of 'enhanced navigation' would be adopted by everyone, and remembered by the equipment manufacturers. Finally he thanked the organisers, the speakers and our hosts from Star Cruises, and particularly our sponsors. Without the generous support of the sponsors, we would be unable to fund branch activities for the next two years and could not support our chosen charities.

The day ended with a cocktail party before we reluctantly departed to make room for the passengers who were departing on a cruise that evening.

Captain Alan Loynd FNI



Conference attendees