

The International Maritime Human Element Bulletin

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Alert!

It takes a special sort of person to be a maritime educator and instructor...

The **Alert!** vodcasts (video podcasts) aim to raise the awareness of maritime human element issues amongst students engaged in all disciplines of maritime study. These vodcasts exploit the power of high quality multimedia presentation and are specifically designed to be viewed and shared by international maritime students.

The 3-5 minute videos aim to engage the younger generation of students studying disciplines such as navigation, engineering, naval architecture, surveying, law, finance, insurance and administration - many of whom may have never experienced the environment of a ship at sea.

Each vodcast corresponds to an edition of the **Alert!** Bulletins. Why not use them as a free study aid, embed them into your Powerpoint presentations or share with friends and colleagues on your social networking page?

The first 14 vodcasts can be downloaded from: www.he-alert.org/user/vodcasts.asp.

Through the **Alert!** bulletins and the website, we seek to represent the views of all sectors of the maritime industry on human element issues. Contributions for the Bulletin, letters to the editor and articles and papers for the website database are always welcome.

The Editor

Alert!

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The STCW Code requires that all seafarers should be properly qualified for the position that they hold onboard.. And, instructors, supervisors and assessors are required to be 'appropriately qualified'... Of equal importance, is the need for maritime college lecturers to be properly qualified to teach those competencies for which they are employed to teach, and to have an up to date appreciation of modern day ship operations and of the new technology aboard ships.

Alert! Issue No. 20, April 2009

It takes a special sort of person to be an instructor in the world of maritime education and training. STCW requires that he/she has to be 'appropriately qualified', have an 'appropriate level of knowledge and understanding' and have received 'appropriate training in instructional techniques, and training and assessment methods'.

But, the knowledge, skills and attributes required of maritime educators and trainers are many and varied, as can be seen from the centrespread feature of this issue of **Alert!**

Maritime educators and trainers need to be aware of the human element issues that can affect the design, management and operation of ships.

They need to be aware of how humans interact with other humans, machines and systems; and they need to be aware of how social conditions can affect the wellbeing of crews.

Maritime educators and trainers must have an understanding of 'the ways of the sea', preferably through seagoing experience at a senior level, thereby providing them with a generous foundation of knowledge that they can impart to their students. They must be up to date with modern day ship operations and with new technologies. And, they need to be able to communicate that knowledge in a manner that can be understood by all their students.

But, it is not just about imparting knowledge. Maritime educators and trainers must be good Teachers, in the true sense. They must be capable of engaging with their students; they must possess good leadership and motivation skills; they must demonstrate solid presentation and classroom management skills; and they must seek feedback from their students so as to build confidence and promote credibility.

It really does take a special sort of person to be an instructor in the world of maritime education and training.





Just being an experienced mariner does not make for a good educator and trainer

Captain John Lloyd, Director, National Centre for Ports and Shipping, Australian Maritime College

Like many professions in the maritime sector, maritime education and training is heavily dependent upon former mariners to deliver the skills and knowledge necessary to the next generation of seafarers.

It takes a special person to join the world-wide band of maritime educators. It takes someone with a desire to 'put something back' into a career that offered the opportunity for travel and responsibility at an early age. But just being an experienced mariner does not make for a good educator and trainer. A whole new set of skills need to be developed to complement the nautical skills established at sea.

Working ashore is different. The traditional hierarchy on board a ship provides a structure of responsibility and authority not usually replicated on shore. Consequently, the first adjustment to make is working in an environment leaning more to coalition and negotiation, agreement and implementation, rather than just decision and action.

The desire to help others learn is very much a pre-requisite for the aspiring educator. Helping others to learn requires a number of key attributes:

Subject Knowledge: It is essential that the instructor knows his or her subject better than the learner. Learning to operate a Radar set successfully is a skill required by all navigators. The instructor though, must be prepared for all the questions that students might think of. How does this work? What order do we adjust the controls? And, most daunting of all: 'Why?'

It is a truism to say you only know your subject properly when you have learned how to teach it to others!

Communicating: The seafaring community is an international one and while English may be the language of the sea, students come from many different places to learn and have widely differing educational standards on entry. The educator needs to be clear with the information transmitted, must be able to give clear written and oral instructions and be able to present information in a manner that can be understood by the learners. This may be in written handbooks or learner guides or may involve the use of multi-media presentations and materials. Assessments must be valid, reliable, fair, clear and unambiguous so students have a clear grasp of what is required for success.

Integrity: All instructors want their students to do well, especially in their own specialist area of instruction. Assessments, tests and examinations are provided to ensure that learning has taken place. There is no room for personal favouritism and bias in the assessment process and all academic staff must display a high level of security and integrity if they are to provide a robust and effective assessment regime. Even so, many organisations provide for anonymous marking of scripts to ensure there can be no suggestion on impropriety.

Cultural Awareness: Different student groups learning in the same environment provide an enriching experience for many students. But different cultures and countries have different expectations of what and how the learning should occur. The experienced teacher becomes

a facilitator of learning for the students, whatever their background, and helps those unfamiliar to cope with the educational delivery system so each can demonstrate full potential.

Patience: No matter how hard the effort, teaching can be frustrating. Enabling students to grasp difficult concepts is not easy. Often the tutor will wish the students undertook more private study, asked questions when stuck and worked with peers to explore issues together. All too often this does not happen and when progress is slow, it is important that frustrations are kept under wraps and the students given every support to learn in their own time.

Pedagogy: This term generally refers to strategies of instruction and the correct use of those strategies. Understanding the fundamentals of pedagogy is an overarching skill necessary for educators to bring together their skills and attributes to enhance the students' learning experience and maximise their chances of success. A clear understanding of instructional strategies also greatly assists today's maritime educators to find their way through the maze of technology which can be used for educational delivery, and make to choices which assist students to learn.

Ultimately the work of the lecturer is hugely rewarding. Helping keep our ships safe and the environment protected by developing highly competent seafarers is often reward enough. The icing on the cake is when these students, now expert mariners, return to acknowledge the commitment and professionalism of those who guided them through their college phases.

The importance of training the trainer

Rus Slater, Professional learning and development specialist, Coach and Courses (UK)

Some time ago I worked for a boss who had a simple approach to the provision of training. His view was this:

"Anyone who knows a subject can run training in it; all they have to do is brain-dump everything they know onto PowerPoint slides and talk the trainees through it"

Consider for a moment the potential consequences of this approach:

- Trainees will probably be bored witless by an endless stream of PowerPoint slides.
- The trainer stands facing the slides not the class, whilst he or she reads the slides; the trainees will feel insulted, as they are capable of reading the slides themselves without having it done for them.

- Since the visuals on the slides are replicated by the speech of the trainer, the trainees have nothing to 'do'.
- Some trainees may already have some of the *knowledge* that the trainer is attempting to impart.
- The trainer is doing all the work, all the time.
- The trainer is totally reliant on the projector working and being adequately visible to the entire group of trainees.
- The content of the training is entirely focussed on the trainer's knowledge rather than the trainees' needs

Ultimately there are serious consequences, both of which relate to trainees' memories: They won't remember much of the content

that they have endured; nor will they remember that the trainer was possibly the most boring person in the world. It is doubtful if either of these was an intended outcome of the training.

A good Train the Trainer programme will help any subject matter expert to become a respected trainer by developing two areas of skill: the ability to focus on the trainees' needs in the planning stages and the ability to focus on the trainees' needs in the classroom.

Being a good trainer isn't about spoon-feeding your trainees with everything they need; it is about letting them, helping them or forcing them to do some of the work themselves.

www.coach-and-courses.com



Claire Pekcan, Senior Lecturer, Warsash Maritime Academy

Maritime education and training has seen a progressive shift from further education to higher education in recent years, which has brought about changes in how we teach our maritime professionals, and in the skills and abilities required of maritime lecturers.

Previously, our emphasis was on technical proficiency in a prescribed and limited range of skills, and in the curriculum that would foster them.

Detailed syllabuses guided maritime lecturers as to the subjects to teach and how long to spend on each area. The curriculum was content driven; the more subjects cadets covered in their training, the more 'qualified' or competent they were thought to be. The requirements of the maritime lecturers tasked to deliver this curriculum emphasised technical proficiency; ex-mariners were sought who were highly skilled professionals that could transmit their considerable knowledge to their class through lectures.

We have since learnt that if we cover too many subjects, it will be at the expense of the understanding and thus the technical proficiency we desire. Cadets will adopt rote learning to pass exams. They may pass, appear to be competent, but their understanding will be superficial at best and their competence will be counterfeit.

We have also learnt that it is necessary

to have a deep understanding of your subject. Highly competent professionals do not necessarily make for good maritime lecturers. Students need to be actively engaged in their learning in order to foster the deep understanding and the competence that our industry needs. This requires maritime lecturers to learn from their students as much as their students learn from them, by seeking their feedback on their teaching.

Maritime lecturers need to change their focus to what the cadets are doing and how they learn. Rather than giving the cadets a lecture, they give them a project to do where they have to investigate for themselves and test out ideas by building ships' models and seeing what happens when they get their calculations wrong.

More recently, there has been pressure to expand the curriculum further to include non-technical competencies such as leadership, management, and cultural awareness. This places even greater emphasis on student-centred teaching. One cannot 'teach' these skills through lectures; they are learnt through experience and thus the job of the maritime lecturer is to create these experiences.

In order to enable maritime lecturers to make this switch from teacher-centred to student-centred learning, we need to develop their professional practice in teaching as well as help them to maintain their technical expertise. At Warsash

Maritime Academy, we have developed a postgraduate programme for lecturers in maritime education and training designed to achieve this aim.

This one-year programme encourages individuals to be innovative in their teaching by giving them the understanding of how people learn, the tools to reflect on their teaching practice, and the skills to use technology, such as simulators, to best effect. It also prepares them for postgraduate teaching, where even greater emphasis is placed on fostering students' independent learning.

This is only achieved if maritime lecturers have the confidence to let go of the responsibility for their students' learning, which inadvertently fosters dependency, and to replace spoon-feeding in lectures with opportunities for hands on experience of applying knowledge and ideas.

In conclusion, it is my belief that there is no genetic code or innate ability that sets a good maritime lecturer apart from his or her colleagues. It is a dedication to professional teaching practice, which, ironically perhaps, involves the lecturer doing less and their students doing more that will produce the results we desire: competent professionals who have a deep understanding of their craft.

A longer version of this article, complete with bibliography can be downloaded from: www.he-alert.org/documents/published/he01060.pdf

A journey towards quality education and continual improvement

Alberto Felisilda Jr, University of Cebu - METC, Philippines

The chance of being part of the group of teachers of the University of Cebu to undertake the Post-Graduate Certificate in Maritime Education and Training (PGCert MET) at Warsash Maritime Academy was an opportunity that I could not put off. I considered it a rare opportunity because it was an opportune time for me, who had been teaching for almost 20 years in the academe without any formal background in education, to assess how have I been teaching over all those years.

Overall, the programme helped me a lot. It introduced me to what teaching and learning should be about. In the past, my focus was only on the teaching aspect such as trying to familiarize with teaching approaches. My only concern was how to deliver the topics or subject matters outlined in the syllabi. I was very teacher-centred rather than student-centred.

The programme significantly emphasized the importance of the human element. The relevance of the human element is highlighted in the theories or concept being discussed in the programme, that in learning the primary consideration is the student himself not the instructor; not the teaching styles or approaches but the learning styles of the students. From the students learning style, the design or planning of learning, the feedback and assessment and the (effective) learning environment, all are designed or planned out with the objective of ensuring that knowledge is transferred and skills are developed by the students.

The programme introduced us to various aspects of teaching and learning. There were four aspects that required us to reflect on in our portfolio namely: teaching and support of learning; design/planning

of learning; feedback and assessment, and effective learning environment.

All these things really helped me improve my teaching approach and I believe that any teacher without a formal educational background who undergoes a PGCert MET programme would be aptly guided in his/her journey towards quality education and continual improvement.

However, teachers are just one of the human elements involved in the academia, because administrators themselves are just as significant as the teachers. They must be exposed to the best practices in maritime education and training that they could implement in their own respective institution. If that is materialized, it is another human element that is highlighted in maritime education and training.

Maritime Educators and Trainers – Knowledge, Skills



Knowledge

Professional experience

- 'Knowledge of the sea'
- Seagoing experience

Conventions, resolutions, rules and regulations

- Knowledge of IMO, ILO, WHO Conventions & Resolutions
- Flag State regulations
- Classification

Industry standards

- Knowledge of Best Practice Guides and other industry standards appropriate to the subject being taught

Continuous professional development

- Updating of knowledge

Management theory

- Basics of management science
- Understanding of cultural differences
- Basic understanding of social systems

Human element

- Understanding the Human Element
- Relevance in design, build and operations
- Benefits of addressing the human element
- Regulatory expectations
- Basic Ergonomics and the effect of context of use on human performance

Subject matter knowledge

- Having a generous foundation of knowledge

Training design

- Psychology of learning
- Knowledge of lesson planning procedures
- Identifying and writing lesson objectives
- Selecting instructional methods and materials
- Planning assessments

Skills

Human element

- Ability to recognise human element issues and predict consequences
- Ability to recognise the impact of shaping factors in the context of use on performance, motivation and safety

Experience

- Currency
- Leadership
- Professional judgement
- Technical skills

Safety awareness

- Setting a good example
- Basics of accident investigation

Communication

- Presenting information in a manner that can be understood by the learners
- Communicating complex ideas in a clear and concise manner
- Translating information using a vocabulary that the learner can understand
- Interpersonal skills

Continuous professional development

- Updating of skills and knowledge

Learning

- Seeking feedback from students
- Designing or planning of learning
- Feedback and assessment
- Valid, reliable, fair, clear and unambiguous assessments

Lesson Planning

- Focussing on the trainees' needs in the planning stages
- Focussing on the trainees' needs in the classroom

Attributes

Attitude

- Self-awareness
- Self-motivation
- Mental ability
- Intelligence
- Personality
- Character

Professionalism

- Professional standards

Integrity

- Moral soundness
- Honesty
- Freedom from corrupting influences
- Unprejudiced

Transparency

- Openness
- Accountability

Temperament

- Confident
- Respect for peers and students
- Polite
- Firm
- Courteous
- Calm
- Patient

Impartiality

- Independent
- Unbiased
- Consistent
- Informed decision making

Communication

- Clear
- Effective

Motivation

- Enthusiasm
- Adaptability

Empathy

- Ability to bond with students

Inspiring

- Exploiting students' talents, skills and abilities

Willing to Learn

- Willingness to learn from other teachers and students
- Human-centred approach in training design

Understanding

- Flexible in teaching style
- Adaptable
- Understanding of human nature
- Awareness of the usability of the training delivered
- Awareness of the ergonomics of training

Dedication to excellence

- Getting the best from students
- Encouraging sharing of ideas
- Willingness to help students achieve
- Pride in student accomplishments

- Taking account of impact of other duties and time available for training
- Applying a human-centred approach to the design of training

Technical proficiency

- Having a deep understanding of the subject
- Understanding the difficulties that non-experts have with a subject

Leadership, management, and cultural awareness

- Training of leadership skills
- Motivation of people
- Working together with different nationalities, religions and mentalities
- Affect of ergonomic factors on performance and motivation

Pedagogy

- Understanding the fundamentals of pedagogy
- Understanding of instructional strategies

Teaching Ability

- Ability to transfer skills and knowledge to a diverse audience
- Building learner confidence in the instructor and promoting credibility
- Facilitating learning and answering questions
- Solid presentation skills
- Classroom management skills
- Teaching methodologies
- Ability to gauge learner understanding through facial expressions, body language and comments
- Ability to read, write, synthesize, evaluate, make decisions and communicate ideas
- Use of feedback to improve teaching and materials

The global shortage of seafarers continues, despite influences resulting from the economic downturn. So all efforts for retention of seafarers and recruitment of new intakes, are as essential now, as in the past. A shortage of seafarers however, will also result in a shortage of competent seafarer teaching staff.

Preferably, seafarer teachers will be recruited from among seafarers; but, this is becoming difficult, such that many shortcuts and ad hoc solutions are observed, to try to overcome the shortage of qualified teaching staff.

New initiatives are required to recruit potential educators and enhance the professional expertise of those wishing to pursue a career in maritime education and training (MET).

Some of the required characteristics of the maritime educator can be described as follows:

- **Subject matter knowledge.** The educator should hold at least the same qualifications as the trainees he/she is supposed to instruct. But the higher or more specialized the training, the more difficult it becomes to find educators holding the same qualifications as the trainees.

- **Experience.** Like with any teaching programme it is necessary to achieve the skills to organize a lesson, transfer knowledge and ideas and relate to people. It is essential to communicate remarks or criticism in the appropriate way. The trainees' background, culture, personality, age, peer group, all have influence on what is appropriate and how sensitivities should be dealt with.

- **Motivation.** The enthusiasm of the teacher for the training programme, exercises and equipment, is a crucial element in the success of a course. He/she should recognize the importance of the training and convey this to the students. However, instructors can be over-experienced, which could result in teaching material becoming so familiar, that the importance for the trainees, who encounter the subject for the first time, is completely overlooked. Even worse is when routine leads to demotivation of the teacher, due to loss of a new challenge.

Where STCW puts emphasis on the qualifications of instructors and assessors, it gives very little specific information on how this shall be achieved.

Part A, Section A-I/6 of the STCW Code requires that "Each party shall ensure that

instructors, supervisors and assessors are appropriately qualified for the particular types and levels of training or assessment of competence of seafarers, either onboard or ashore."

'Appropriately qualified' implies knowing the present situation on board. Refresher sailing periods are the best way to assure this. Then there is the issue of competence-based rather than knowledge-based training and education. It makes little sense if a graduate knows how to write about a shipboard operation, if he cannot perform it.

The quality of instruction, therefore, will depend heavily on the experience and expertise of the staff in the training institute; which means that, despite the global acceptance of STCW, there will still be considerable differences between the various institutes and thus of the product of their educational efforts.

But above all, how to attract teachers and what conditions are available for them is crucial to consider in assuring that qualitative MET will still be here in the future.

[A longer version of this article can be downloaded from: www.he-alert.org/documents/published/he01065.pdf](http://www.he-alert.org/documents/published/he01065.pdf)



The qualities of a trainer

Paul Russell, Marine Education specialist

It would be reasonable to expect that anyone paying for a training course would be presented with an expert in the field of study indicated by the title of the course. However, whether that person also knows if his/her subject matter will be learnt by the audience is a whole new question.

Companies spend considerable amounts of their budgets on sending staff to expensive seminars and training events but do they know if they are getting value for money? Just having an industry expert at an event without that person having a basic idea about how to deliver information may be a waste of money and could have wider implications if there are safety issues involved.

In the UK, all lecturers in Further Education Colleges are required to be qualified teachers; this was not always the case

and is still not always the case in other countries. Therefore what should we expect for our money?

When first learning about the art of educating or training, the message is that *preparation* is the key to being able to deliver a good subject. Therefore the trainer should have the key facts and technicalities of the subject at his/her disposal.

Whether it is a short presentation or a longer course it should be borne in mind that an individual's learning style is either by hearing the information, seeing the information or being involved in a practical aspect of the learning. It is difficult in a short presentation for trainers or presenters to get the students engaged in a practical activity but they should have a clear and interesting visual presentation ready, and they should speak clearly with some variation in tone.

Another key aspect of learning is 'going from the known to the unknown'; in other

words the presentation should unfold and take the students on a journey which starts from something that they know and leads on to new information.

Where there is enough time, trainers should organise the learning around an activity base. For example a crisis management course could use a bridge simulator to stage a collision and the bridge teams concerned could then go through a debrief from the collision and then attend subsequent press interview.

One of the most important qualities that any educator or trainer must have is to make sure that the learner reflects on his/her experience. It is this reflection that allows people to internalise their understanding and commit the information into their long term memory. This will also be accomplished by showing an obvious enthusiasm/passion for the subject.

[A longer version of this article can be downloaded from: www.he-alert.org/documents/published/he01070.pdf](http://www.he-alert.org/documents/published/he01070.pdf)

Quality teaching for maritime students: An ongoing challenge?

Dipl. Ing. Stefan Rother, Flensburg Maritime College, Germany



7

Studies have shown a dramatic downward trend in the average age of seafarers in management positions and a high demand for qualified senior officers in the years to come. There is also a shortage of seagoing personnel and, moreover, an apparent lack of training personal, which has not been highlighted so far.

The age of seafarers in management positions is continuously decreasing; and less and less seagoing experience or practical experience is the result of the strong market demand by shipping companies. Are these seafarers the future teachers at maritime universities? Hopefully yes – otherwise, we will have teachers with absolutely no practical background coming from various industries and trying to adopt seagoing experience by literature only. Fortunately, a lot of teachers in maritime colleges still have a seagoing or engineering background – which is essential for the training of young seafarers.

But practical experience is only one of the tasks to be an accepted teacher. Teachers need to develop competence in explaining

quite difficult and complex tasks in a simple manner in order to reach the students and to motivate them. The basic elements of didactics and learning methodology are crucial and a key to the learning success. Further, teachers in maritime colleges bear a high responsibility with regard to the development of interpersonal skills of the students. Past experiences have shown that human negligence and lack of responsibility have caused a lot of major incidents in shipping.

Therefore, teachers need to develop expertise in new areas of training like working in an extreme environment, working together with different nationalities, religions and mentalities. The intensive training of leadership skills is just as important as the development of engineering or nautical skills. Motivation of people and good leadership with modern methods is one of the key elements to teach in the future.

Based on my own experience, I would say that teaching offers a lot of direct response and feedback from the students and working with young people daily is brainstorming in every respect. In

general, students at a maritime college have the strong intention to get their exams done in the shortest possible time and it is good to watch their progress and see them improving day by day. However, it is essential for teachers to continuously update their know-how and keep track of the latest developments – not only with the technical elements such as engineering, ship building, nautical and forensic developments, the daily shipping business etc, but also with the social aspects and skills, which are not to be underestimated.

Being a teacher involves daily self-study. On the one hand, it is a great opportunity to take part in laying the foundation for young peoples' future career development and on the other hand, to work on key issues within shipping whilst taking advantage of the previously gained valuable skills.

Providing practical training is an ongoing challenge – but also a very valuable career opportunity.

A longer version of this article can be downloaded from: www.he-alert.org/documents/published/he01075.pdf

Towards reducing the number of human factors-related accidents

Allan Graveson, Senior National Secretary, Nautilus UK

The importance of the human element in shipping safety has become widely accepted in the industry in words if not in deeds. But how is this knowledge being passed on so that the seafarers of tomorrow can benefit and the number of incidents reduced?

In the early 1990s NUMAST, the predecessor of Nautilus International, produced a report that called for higher standards of training to ensure that all seafarers reach a universal level of basic competence. However, there is still a lack of emphasis placed on the relationship between high levels of training and a reduction in the number of human factors-related accidents.

The problems have been all-too evident in the past. In 1988 a fire broke out in the engine room of the passenger ship *Scandinavian Star*. With 27 nationalities onboard and no common language, the alarm was raised using hand signals and the fire-fighting efforts were severely impaired. These issues were not resolved

and a similar fire two years later led to the deaths of 158 passengers and crew.

In 1989, responses to the *Exxon Valdez* disaster largely overlooked the human element. Very little attention was given to the US National Transportation Safety Board report which concluded that the most immediate factor in the vessel's grounding was the 'failure of the third mate to properly manoeuvre the vessel because of fatigue and excessive workload'.

Human factors appear to have played a role in the recent *Costa Concordia* disaster. Many have been quick to point the finger of blame firmly in the face of the captain, but little has been said about the bridge team. Did anybody on the bridge that day question the route the ship was taking? Did the officer of the watch realise the danger and question the master? The safety of any vessel has to be in the hands of all the crew and they must all be willing and able to question decisions.

Those onboard must work in an atmos-

phere free from bullying and aggression if they are to feel able to question the master when they feel something is not right. Similarly, crew resource management training should foster an environment in which cross-checking and double-checking is not seen as close to challenge the master's authority.

There also appeared to be an issue with language and communications during the evacuation. All crew must be able to speak a good level of English and/or the working language of the vessel if they are to quickly and safely follow instructions from the bridge. They must also be able to communicate effectively with those travelling onboard as the human element is clearly evident in the delivery of clear and concise instructions to passengers.

Better research is needed into the complex role of human factors in marine accidents. If proper collection and analysis of data is undertaken, then the lessons needed for new and future maritime professionals will be much clearer.

Fatality during mooring operation

This investigation report features a fatality aboard a 23500 grt container vessel, when a headline parted under tension during a berthing operation and struck an ordinary seaman (OS) who was standing on the deck. It highlights a number of human element related lessons to be learnt, not least: the importance of carrying out a risk assessment before design modifications are made; of following instructions on the planning and execution of mooring; of following guidance on mooring rope inspection, care and handling; and of good communication.

The vessel was moving astern along her berth, assisted by two tugs. The forward mooring station was manned by the chief officer, bosun, a trainee seaman, a cadet and the OS.

The master had given instructions to start taking weight on the fore and aft mooring lines; the pilot did not communicate to the master that he had given an instruction for the tugs to stop pushing. The headline parted, snapped back and struck the OS. Although he was wearing a safety helmet

at the time of the accident, the injuries he sustained to his head were fatal.

The forward mooring deck of the vessel was spacious, and snap-back zones were clearly marked with yellow paint. Some 7 months prior to the accident the winch controllers had been moved from a position on deck aft of the centre mooring winch, to a new position which meant that the winch operator was required to face aft during mooring operations.

The snatch loading and parting of the mooring rope occurred without audible warning. The OS was therefore unaware of the imminent danger. The chief officer was unaware of the risk of the mooring rope parting until it was too late to give a warning, and the bosun, who was operating the winch controllers, was unaware that the OS was standing in the snap-back zone behind him. And, the relatively inexperienced trainee seaman and cadet did not recognise the potential risk to the OS before the rope parted.

The company's instructions and guidance

on mooring operations included the dangers of ropes parting and the observance of snap-back zones. These were reinforced in a concentrated safety campaign on mooring and anchoring, which had begun about a month before the accident. The campaign highlighted the need to conduct a tool-box meeting before every mooring operation, but, no such meeting was held prior to the vessel's berthing.

The report suggests that, a tool-box meeting conducted before each operation would have reminded all mooring party members of the intended plan and the safety considerations to take into account, and may have encouraged further communications and interaction during the operation.

Those who are involved in the design, regulation, management and operation of merchant ships are strongly advised to read the whole report which identifies all the safety issues raised by the case, and can be downloaded from: www.maib.gov.uk/cms_resources.cfm?file=/Fremantle-Express_Report.pdf

Reports & Studies

Stress prevention at work checkpoints

International Labour Office, Geneva

This manual has been prepared to reflect the increased necessity for measures to deal with problems causing stress in the workplace.

Downloadable from: www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_168053.pdf

The Challenges in Philippine Maritime Education and Training

Angelica M Baylon, VAdm Eduardo Ma R Santos, Maritime Academy of Asia and the Pacific

This paper examines the implementation of the revised STCW Convention and Code, and the role of various stakeholders to recruit, train and retain the seafarers for the safe operation of their vessels.

Downloadable from: <http://auamii.com/jiir/Vol-01/issue-01/X5.Baylon.pdf>

Industry recommendations for ECDIS training

The Nautical Institute

Issued by an industry group made up of leading international shipping industry organisations, the guidance covers issues of training and competency for ECDIS and helps interpret IMO requirements for ECDIS training. It makes recommendations to ensure that watchkeepers remain competent and that other industry stakeholders are capable of assessing such competence.

Downloadable from: www.he-alert.org/documents/published/he01080.pdf

Hearing Protection

Peter Wilson, Industrial Noise and Vibration Centre

An article in which Peter Wilson argues that most hearing conservation programmes are ineffective.

Downloadable from: www.he-alert.org/documents/published/he01085.pdf

Alert!

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