

The International Maritime Human Element Bulletin

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Alert!



Responsibilities come before skills, so all of the **Alert!** bulletins in this series are about responsibilities, from which we would hope to develop the necessary knowledge and skills frameworks for the various stakeholder groups to discharge those responsibilities.

But, we would not be 'user-centred' if we did this on our own. Contributions from those who have already benefited from the right training and experience will be essential to ensure that we get it right. What we offer in the centrespreads will serve as a 'first draft', which we will ultimately develop through the **Alert!** website with a view to providing a comprehensive human element skills framework for all the various stakeholders, by the end of this series of bulletins. Feedback, therefore, is essential – and very welcome.

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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Facing the challenge...

Corporate organisations need to demonstrate a commitment to sustainable development through the three tenets of Corporate Social Responsibility - social, economic and environmental performance. (Alert! Issue 5)

Corporate Social Responsibility (CSR) should be very much at the heart of what those who are responsible for the financial aspects of ship operations are doing. CSR is all about an organisation taking responsibility for the impact of its activities upon its employees, its customers, the community and the environment. So, the principles of CSR apply as much to the business of shipbrokers and charterers as they do to the financiers, finance teams and insurers.

When it comes to human element issues – whether this be in the brokering or chartering of ships or in their procurement design, operation or support - there will always be a fine balance between what is seen as a 'cost' against what should be considered an 'investment'.

To often, the term 'human error' is cited as the cause of an accident; in some cases, it may be correct to say that the immediate cause was through 'operator error', but when looking to

the root cause, that 'human error' may well have started at the procurement or chartering stage if little consideration has been given to ensuring that the ship and its crew are really 'fit for purpose' or, indeed, whether that ship is 'fit for the crew'.

The insurers also have a role to play here by highlighting the human element issues when assessing and prioritising risk, when raising awareness of the threats that can lead to insurance claims, and when determining what controls should be in place to reduce such claims.

However, this does not mean that it is necessary for everyone to become a human element expert. Rather, as is starting to come across clearly from some of the articles in this issue, there is a collective responsibility for the industry to address the human element, with each different stakeholder having a specific role to play.

For each stakeholder, therefore, there is a responsibility to acquire, value and use relevant information about human element issues in their decision making and to know from where to get this information. For each stakeholder there will be skills related to eliciting, analysing and acting on this information.



Towards a safe, sustainable and dependable shipping industry

Richard Sadler, Chief Executive Officer, Lloyd's Register



A good financier of a project such as investment in a shipping asset only has two concerns: Is the project that is under consideration acceptable according to the moral guidelines that the company has signed up to within their Corporate Social Responsibility (CSR) scope? And, if that is the case, is the risk that this project will deliver the required returns acceptable?

If you consider a shipping investment, return risk comes from the following areas: financial risk such as fluctuating exchange levels; market risk such that the asset will not deliver a profit sufficient to pay the interest and capital during the life of the loan; asset risk such that the asset quality is not adequate to perform well enough to generate sufficient income; and operator risk such that those involved in running the asset do not achieve the correct performance of the asset to again achieve the necessary income to repay the loan and interest.

Whilst the human factor comes into all levels of the decision making process at all levels, let us assume for simplicity we are considering the human factor influence of the last category - asset operation.

The question is: what skills and knowledge should the people who fund shipping have in order to capitalise on their potential influence in improving the situation regarding the human element?

Just as most engineers and ship operators would not know what to ask to assess the risk of financial lending, similarly financiers would not know what questions to ask to gauge human factor risk in ship operations. That does not mean they should ignore it; and they should definitely price it into their risk model. It is important that covenants in the loan or lease documentation specify the correct level of operational knowledge and processes to protect the income generation of the ship. But how do they do that without the sector knowledge?

In reality the needs of the financier are very similar to the needs of classification, insurers and good operators - safe, sustainable and dependable shipping.

As the industry relies on the banks to

fund at the initial stage then we all have an interest in supporting the banks in providing them with the safeguards in their covenants that would help to improve the situation regarding the human element.

I suggest, therefore, that rather than the skills and knowledge being resident in those that fund shipping, we should all work together as interested stakeholders with the same objective to assist financiers in their understanding of the level of risk from poor interrelations between people, process and plant, and guide them accordingly. If we encourage financiers to price that risk highly, then the incentive for operators to pay more attention to improving the human factor position is: cheaper loans.

Whether you are a bank, insurer, class society, owner or individual reliant on the marine environment or shoreline for your living we all require the same thing. We require the three legs of sustainability, business, environment and social conditions, to be in harmony. We all require suitable management and management systems, the right attitude and corporate culture and the appropriate training and leadership models to be in place for all ships and associated companies.

Those who lead the industry have a shared responsibility to continuously improve the social conditions of our seafarers and the social conditions of those affected by our activities. We have a responsibility to ensure that people, plant and process can effectively interrelate to ensure the safe, sustainable and dependable operation of maritime assets.

These sound like obvious and somewhat academic statements but the reality is that investment organisations may have to accept changes from the uni-dimensional measure of success we operate in at the moment. We have to look wider at financial growth and profit to achieve a more socially responsible attitude toward the human element.

We have to accept that we need to lobby on behalf of the bedrock of our industry

- the seafarer - especially in this, the IMO's *Year of the Seafarer*, to prevent mistreatment. The ILO's Maritime Labour Convention is aimed at improving the social conditions of our seafarers - their living conditions, working conditions and rewards. We are seeing improvement, but this is one area where, despite recent efforts, we should say that we have not improved enough and have allowed our seafarers' social status to be eroded.

Crew shore leave restrictions prevent crews enjoying the much needed relaxation that they would otherwise enjoy. I don't see aircraft crews having to stay on their planes for six months as they fly around the world. In fact I see them having preferential immigration channels and being treated as VIPs. Are seafarers such a security risk and so unwelcome that they cannot be offered the same courtesy? Did you see the pilot of the plane grounding in New York harbour immediately being arrested and held under bail? It seems to me that our industry is not being allowed to play by the same social rules as others. This is not continuous improvement.

We know that operating a ship is not just about having knowledge of the equipment and systems, but also, we have to be able to execute this knowledge properly with respect to safety and long term benefit. We need to design the equipment and the working practices that surround them with the human interface in mind. 'You put a good person in a bad system and the bad system wins' - no contest!

You cannot have a safe, sustainable or responsible business without sound technology that is suitably managed and operated by suitable people in a suitable culture and environment. That is why in Lloyd's Register we consider that the integration of our asset technology capability with our human element business and Quality Assurance activities contributes to a suitably holistic view on safety.

No matter who you are I would be very interested to hear from anyone, financial institution or otherwise, that could not agree with those aims.

The Alert! website library

Readers are invited to submit to the editor (editor@he-alert.org) for inclusion in the **Alert!** website library, any academic papers, technical papers, magazine articles, presentations, letters etc that are likely to add value to the understanding and application of Human Element issues.

To access the library go to: www.he-alert.org/en/articles.cfm

Karl Lumbers, Loss Prevention Director, UK P&I Club

Mutual insurance is insurance at cost. Owned by its assureds, and designed not to make a profit, the cost of mutual insurance to its members is directly linked to its claims. Therefore anything which reduces claims will directly impact on a member's premiums.

In 1987, 55 percent of the UK P&I Club's large claims were considered by its claims executives to have been caused by human error. It was clear that if claims were to be reduced, this was an area to be focused on. Since 1987, the Club has focused very heavily on using its experience of handling shipping liability claims to raise awareness of what goes wrong and getting that information to those at the sharp end. Much of this has been done in the form of contemporaneous advice on current claims trends, posters, videos, cargo loading advice etc.

The industry has learnt a lot in those twenty years. Many people have put an enormous amount of effort and time into trying to resolve the human factor issue,

be it at the sharp end or around the boardroom table. We have learnt that humans make mistakes, some unintentional, but many intentional. We know we all violate the rules to a lesser or greater degree, in many cases routinely, and that experienced people do this perhaps more than the less experienced. We are now, as an industry, far more knowledgeable and pro-active when it comes to the human factor.

As mutual insurers we have come to the conclusion that is practically impossible for us to resolve the human error issue ourselves; it is just too big with too many variables. We feel our role as insurer needs to be more focused if we are to assist our members in reducing their costs from human error incidents. We need to prioritise risk.

We as risk managers need to look at the number and value of the Club's claims, prioritise the high risk areas through analysis, and determine what the threats are that cause these claims. Then, with

the aid of those at the sharp end, our correspondents, surveyors, claims executives and underwriters, determine what controls - be it engineered, procedural or managerial - should be in place to reduce those claims. Those controls then need to be assessed, either with the help of the Clubs own risk assessors or by members themselves in conjunction with their crews.

Hopefully, by focusing on the high-risk threats which cause P&I claims and the controls that we, as insurers, feel have failed to contain some of those threats, that focusing on the effectiveness of those controls will mitigate the consequences, so that in future one small mistake by a human either on board or ashore is not 'the straw that breaks the camel's back'.

An illustrated version of this article can be downloaded from:

www.he-alert.org/filemanager/root/site_assets/standalone_article_pdfs_0605-/he00895.pdf

For further details about the human element and loss prevention, go to:

www.ukpandi.com/loss-prevention/



An understanding of what makes human error less likely lies at the heart of loss prevention

Chris Spencer, International Group of P&I Clubs

Whenever there is an accident on board ship you can be sure of one thing: human error will be to blame. Understanding the full implications of this fundamental truth lies at the heart of loss prevention at all P&I Clubs, and how they ensure that lessons are absorbed so that mistakes are less likely in future.

Clubs in the International Group receive approximately 35,000 claims a year, providing a tremendous bank of data. Whilst of course it varies from club to club, the rough breakdown of number of claims goes like this:

- **50%** cargo damage
- **30%** personal injury
- **10%** collision (including fixed and floating objects)
- **2%** pollution
- **8%** other (including wreck removal/fines)

The way Clubs use this data affects pretty much everything that they do: their loss

prevention programmes, their advice to members and their underwriting decisions, to name but a few of the most important. It is vital, therefore, to have a true understanding of these statistics and the factors that influence them.

When analysing a claim (or accident) the root cause is invariably human, whichever way you may wish to look at it. Even claims where there has been mechanical failure, more often than not it is down to a human error, omission or possibly a design failure.

Human failings include poor management and supervision, planning, training, motivation and leadership, communication or a combination of these. They can all lead to making mistakes or wrong decisions, taking risks or not complying with procedures. It is a complex assessment; for example an incident apparently caused by tiredness could be as a result of management not supplying adequate resources or poor planning or leadership.

How you record this data is of critical importance. To produce the consistency and accuracy required, the 'in-putters' of the data need the skills to accurately assess the 'human element' aspects of the claims. Most P&I claims executives, due to the nature of the positions, are trained

legally and therefore are not ship safety and operational experts. This is why Clubs ensure that they also have staff skilled in identifying what actually happened in practice whenever there has been an accident: who did what, why and with what consequences.

Loss prevention managers are usually ex-seafarers who have a good knowledge of ship management and operations, so can identify the different ways in which humans might cause accidents. They also need the skills to develop loss prevention programmes for individual shipowners, for the members of their respective clubs and also, in a general sense, for the shipping industry as a whole.

Finally, we should not forget near-misses, which can also be an important tool in accident prevention. Unfortunately, just as mistakes are human so is the desire to conceal them. Near-misses are too often under-recorded and little analysed, especially outside the oil and gas sectors. This is a cause for regret, because the more that shipowners understand the human aspects of their operations the safer they will become.

Chris Spencer is Director of Loss Prevention at the Standard P&I Club: www.standard-club.com



Financiers/Bankers

- Be aware of the need for safe, sustainable and dependable shipping
- Balance the return risks with those of financial risk, market risk, asset risk and operator risk
- Understand the need to gauge risks arising from not addressing the human element in ship operations
- Specify the correct level of operational knowledge and processes to protect the income generation of the ship through the covenants in the loan or lease documentation
- Understand the level of risk from inadequate integration between people, process and plant
- Understand the need to price risk highly, as an incentive for operators to pay more attention to addressing human-system issues

Financial Department

- Be aware of the need for safe, sustainable and dependable shipping
- Balance the return risks with those of financial risk, market risk, asset risk and operator risk
- Embrace the principle of the three legs of sustainability, business, environment and social conditions being in harmony
- Be aware of the need to continuously improve the social conditions of seafarers and of the social conditions of those affected by maritime activities
- Take responsibility for the impact of the organisation's activities upon its employees, as well as its customers, the community and the environment
- Ensure the right balance between the cost of, versus the investment in, people
- Understand the need for triple bottom line accounting and through-life cost-benefit analysis
- Include the human element in the business case for future operating concepts
- Include the 'soft' costs of introduction, operation and disposal, and human contributions to system effectiveness, including human error and human resilience in recovering from system failures
- Understand that usability and human element activities should be included as part of the business strategy
- Ensure that business management sets demands on usability for ship operations
- Be aware that business management is interested in how the usability of their ship operations compares to that of competitors
- Be aware of the marketplace and define and maintain a position relative to the market place
- Ensure that senior management directly control the funds to maintain/improve user-centred design skills, resources, technology, awareness and culture
- Establish through-life cost accounting in order to assess the costs and benefits of a user-centred approach regarding the operation of future systems in their expected context
- Understand the human element implications of any business opportunity
- Understand the business implications of any human element issue
- Provide human element data and advice to purchasing processes in general
- Provide and review human element aspects of investment appraisals, cost effectiveness analyses, business cases and high-level metrics or other financial performance indicators
- Use through-life and other suitable total cost models as part of financial analysis

Underwriters

- Be aware of the need for safe, sustainable and dependable shipping
- Understand the client's approach to business in particular how they address human-system issues
- Understand the need to work with clients in managing and embracing risk
- Understand that human failure is a leading cause of total and partial losses of vessels and of the valuable cargoes they carry
- Understand that the human element in shipping operations and its impact on risk is critical.
- Ensure that underwriters, loss control professionals and surveyors who assume and manage the risks associated with international trade are properly trained and have the appropriate experience to carry out their duties
- Understand the need for underwriters and surveyors to be knowledgeable about how the transportation supply chain works
- Understand the need for underwriters and surveyors to have a practical understanding of the standard operating procedures applied by the vessels/owners they insure/survey to fully appreciate and evaluate constantly evolving risks
- Understand the need to assess crew and office management to ensure that shipowners are entrusting their vessels to quality seafarers
- Understand the need to identify human-system risks and seek to avoid them
- Encourage risk reduction through ergonomic design
- Highlight human element issues when assessing and prioritising risk, when raising awareness of the threats that can lead to insurance claims, and when determining what controls should be in place to reduce such claims.

P&I

- Be aware of the need for safe, sustainable and dependable shipping
- Raise the awareness of the human element issues relating to accidents
- Provide contemporaneous advice on current claims trends
- Prioritise risk
- Encourage risk reduction through ergonomic design
- Prioritise the high risk areas from claims through analysis, and determine what the threats are that cause these claims
- Focus on the high-risk threats which cause P&I claims and the controls that have failed to contain some of the threats; and on the effectiveness of controls to mitigate the consequences
- Be aware of the skills needed to accurately assess the 'human element' aspects of claims
- Whenever there has been an accident, identify who did what, why and with what consequences
- Develop loss prevention programmes for individual shipowners, for members and for the shipping industry as a whole

Brokers

- Be aware of the need for safe, sustainable and dependable shipping
- Ensure that the ship and its crew are 'fit for purpose'
- Ensure that the ship is properly equipped and 'fit for the crew'
- Understand the importance of selecting quality and vetted ships, across the market
- Provide a vessel with a crew that meets the Charterer's minimum standards

Charterers

- Be aware of the need for safe, sustainable and dependable shipping
- Ensure that unsuitable shipping is filtered out
- Ensure that the client takes responsibility for the impact of the organisation's activities upon its employees, its customers, the community and the environment
- Ensure that best practices are applied and that the selected vessel is 'fit for purpose', properly equipped and 'fit for the crew'

Deirdre Littlefield, President, International Union of Marine Insurance



The International Union of Marine Insurance, which speaks for marine underwriters worldwide, fully supports quality and safety standards and, equally, is fully committed to improving maritime safety.

All insurers are aware that the biggest obstacle to a lasting improvement in casualty experience is human error. Statistics collated by IUMI indicate that human failure is a leading cause of total and partial losses of vessels and, often, the valuable cargoes they carry.

So the human element in shipping operations and its impact on risk is critical. Proper training and experience are essential to produce good, reliable mariners, of course, but this applies also to the underwriters, loss control professionals and surveyors who assume and manage the risks associated with international trade.

These also benefit from having a maritime and/or logistics background, whether shore-based or at sea; but practical job training is also very beneficial for those with no prior maritime experience.

Today, marine insurance companies carry out far less on-the-job training in these areas than in the past, so underwriters and surveyors are often required to attend external courses to gain experience. They need to be knowledgeable about how the transportation supply chain works - specifically in relation to terminals, cargo, vessel operation and the required qualifications of the personnel who work on board ship or ashore.

Crew selection and training, maintenance in terminals and on board ship, as well as basic operations such as loading and discharge, can all be positively or negatively affected by economic conditions, as we have seen during the course of 2009, and marine professionals must be aware of the potential impact on their business.

Underwriters and surveyors need to have a practical understanding of the standard operating procedures applied by the vessels/owners they insure/survey to fully appreciate and evaluate constantly evolving risks.

Today's modern ship, of whatever type, is a highly complex piece of machinery, largely controlled by computer programs and systems, from the bridge to the engine room. Training in this new technology, and the time to undertake it thoroughly, is therefore vital, especially for officers and cadets on board but also for shipmanagers and supervisors ashore.

Language is another big issue when crews from many different countries come together with little or zero common language skills. Commercial marine insurers and the protection and indemnity mutual clubs are largely agreed that, in an ideal world, shipping should take its lead from the aviation industry, where English is the unchallenged common language.

Things may indeed be moving that way, albeit slowly. In February this year the European Parliament advocated that all communications between ship and port within the European Union should be in English. A common language would reduce confusion and cause fewer admin delays, it was said. It appears that the coastal shipping network in European waters is the focus of this Brussels initiative, but obviously it could develop into a wider picture.

The shipbrokers' and charterers' perspectives

Alan Phillips, Director/CEO the Institute of Chartered Shipbrokers & Phil Parry, Chairman, Spinnaker Consulting Ltd

A century ago it was stated that the shipbroker was 'born and not made' as he had to possess so many qualifications, and above all had to be 'a man of action and capable of holding the balance between his clients effectively and intelligently'. Further, the shipbroker needed to be 'diligent and painstaking, and careful in carrying out the instructions of his principal'.

So what skillsets does today's broker need? Apart from a personality and well-tuned negotiating and networking skills that develop down the line contacts, he or she must have a detailed knowledge of the specific sector and a professional understanding of the shipping business.

Some of the best people do not have any formal qualifications and, despite the ever increasing use of IT and research analysis, it is the individual that makes the decision. But, on balance, employers feel the better qualified the person the better he or she is placed to make the right decisions. Most major companies have in house training programmes and many are supported by the Institute of Chartered Shipbrokers (ICS)

- the professional body to commercial shipping.

The human element side of chartering is one that has to be dealt with at a process level so as to enable chartering organisations to filter out unsuitable shipping thereby almost rendering the broker a 'constrained supplier'. In the past, he would have taken into consideration such factors as gear, draft, size, hold dimensions etc, but nowadays there are other human element related issues to bear in mind. For example, in the tanker market he might have to look at crew matrices to ensure that an owner 'ticks the right boxes' and provides a vessel with a crew that meets the Charterer's minimum standards (such as those required by the Tanker Management Self Assessment (TMSA) programme) - then they can deal, and that broker can work that vessel for them.

The tanker market has, for some time, been subject to vetting through the Oil Companies International Marine Forum (OCIMF) Ship Inspection Report Programme (SIRE). We are now seeing

something similar in the dry bulk market because the tanker market best practice has filtered through to other chartering markets and brokers have to understand the issue of a quality ship and a vetted ship, across the market, in a way that that they never used to have to do.

This is something that is driven not just because it is 'the right thing to do' and by safety and quality requirements but also because the insurance market demands it. For example, cargo insurers have been saying for some time that they are not happy with the level of cargo claims that they are paying out and they want to see better quality dry bulk vessels being chartered, just as is done in the tanker market. Without this approach cargo insurance premiums would go through the roof. Insurers want to see vessel and chartering standards at a level that renders cargo claims a fortuity, not a certainty.

All these things combined mean that brokering and chartering staff have effectively become human element 'gatekeepers'.

Captain Pradeep Chawla, Director, Quality Assurance and Training, Anglo-Eastern Ship Management Ltd

Listen to a speech by any CEO in any industry and you will surely get to hear something on the lines of: "People are our main asset" or "We owe our success to the dedication and hard work of our people".

If you attend a meeting with the Chief Financial Officer (CFO) of the same company, do not be surprised to hear remarks like: "We need to reduce costs and some of the senior staff are costing us too much" or "We cannot afford to spend so much on training when the markets are doing so badly".

It is the job of the CFO to watch the profitability of the company by watching the dollars and cents but the spreadsheets with numbers do not always reveal the hard work done by the people leading to the profits for the company, nor do they always reveal the mistakes of the people that reduced the profits or lead to the losses in a company.

To reveal the true picture the CFO needs to dig deeper and perhaps take a lesson or two in other departments in the company. When a pump breaks down due to lack

of correct maintenance by crew, does the spreadsheet show the cost of repairs as 'routine maintenance' or as a loss due to lack of training? When a seafarer spends all night repairing the reefer container to save a load of expensive cargo from rotting, and avoids a huge cargo claim, does it get reflected in the profit and loss statement?

Costs of accidents often get buried under different account heads like 'Repairs due to wear and tear', 'Spare parts', 'Maintenance' and in many other innovative ways, as it is often convenient for department heads to do so, rather than admit failings in their department.

The total costs for a company from minor incidents can be substantial. Figures given by a leading P & I Club indicate that the total losses suffered by the industry are:

- \$541m a year
- \$45m a month
- \$11m a week
- **\$1.5m a day**

There is a definite link between the knowledge, skill and motivation level of the employees and the losses due to accidents (or increased profits due to lack of accidents).

CFOs understand profit and loss extremely well and if all the department heads are able to separate and identify the costs of accidents and show how the efforts of training are helping to reduce the accidents and improve the bottom line, the CFOs would fully support the investments into training and the seafarers will be considered as a sound investment rather than an expense. It is a matter of good teamwork and clear communications between the financial controllers and the ones who actually control the work!

When the CFO understands the relationship of how the well trained professional crew translates into higher profits and growth of business, you would have succeeded!

A longer version of this article can be downloaded from:

www.he-alert.org/filemanager/root/site_assets/standalone_article_pdfs_0605-/he00900.pdf

Ship financiers need to treat seafarers with respect

Clay Maitland, The 'Ginger Group'

Many bankers and other lenders fail to acquire the skills and knowledge to properly handle the vital human element when financing ship operations. As a result, many ill-trained, short-handed and overworked human beings are serving at sea. In turn, this increases the risk of accidents and the pollution of the marine environment.

Despite a vast improvement in its safety record and its environmental performance, the poor image of the shipping industry results in it being pilloried by politicians, national and local governments, and environmental organisations.

I believe we should follow the example of the Greek shipping industry. It has survived and prospered over the decades because it highly values the vital human element. It is not prepared to embrace the least expensive solution by delegating the handling of its crews to uncaring and substandard owners and operators.

We must recognise that the well-being of our seafarers is the collective responsibility of all stakeholders in the industry. That

includes underwriters, insurers, and brokers; as well as charterers, cargo interests, flag states, port states, and class societies.

We must recognise that the well-being of our seafarers is the collective responsibility of all stakeholders in the industry

Also, we need to create a climate of inclusion for our seafarers. That means entering an effective dialogue with them, seeking their views, and giving them a voice in our international councils. In addition, we must vastly improve the complex business of recruiting, training, and retaining our seafarers.

The indignity of seafarers being treated as aliens by many port state authorities must end, and we must guarantee their right to shore leave and repatriation.

In this recession, we must guard against a

decline in the quality of new buildings and ship maintenance. That impacts adversely on the human element, along with the practise of cutting costs by employing cheaper and less qualified crews

Clay Maitland is a noted maritime executive and commentator. He recently set up a 'ginger group' of well-known maritime figures and a website blog advocating more active involvement in the crusade for safer ships and cleaner seas, bridging the communication gap between conservation and environmental groups, industry decision-makers, and governments. He is supported by Dr Hans Payer, a former member of Germanischer Lloyd's Executive Board and CEO of GL Maritime Services; Mr Michael Grey, former Editor of Lloyd's list and maritime columnist; and Mr Neville Smith, previously Deputy Editor of Lloyd's List, and editorial consultant and freelance writer. For further information go to: www.claymaitland.com

A copy of Clay Maitland's introductory paper can be downloaded from:

www.he-alert.org/filemanager/root/site_assets/standalone_article_pdfs_0905-/he00905.pdf

Accident to seafarer in fore peak tank

This report from the Danish Maritime Authority features an accident that occurred onboard a 30,024GT Chemical/Products Tanker, whereby a fitter, who was involved in the replacement of a defective transducer for the Doppler speed log in the forepeak tank, fell some 1.8 metres from the lowest platform in the tank, and suffered serious injury.

This is an example of an accident where the root causes were found to be in a number of design deficiencies in the handles and railings on the lower platform of the tank and in the size of the lightening holes in the tank platforms (described in the report as 'small circular openings to enable water to flow freely and to avoid sediment settling on the platforms').

The safety issues related to this work had been identified by way of a risk assessment made by the chief engineer, and discussed at a 'tool-box' talk with all involved parties, prior to the commencement of the work. The fitter had been briefed personally about the job and the risks related to it, by the chief engineer.

Ultimately, the fitter lost his balance and

fell over a sloping bracket down to the bottom of the tank, a fall of approximately 1.8 metres. His head hit the floor, knocking his safety helmet off.

The risk assessment for replacing the transducer had specifically been drafted for this task. Special attention had been given to the safe and secure movement in the tank with focus on the possibility of slippery surfaces and areas with poor illumination.

The report concludes that the lack of sufficient handles and railings on the 3rd platform brought along a potential danger of falling. Furthermore, on all the platforms in the fore peak tank there were small circular openings to enable water to flow freely and to avoid sediment settling on the platforms. The report concludes that the circular holes in the platform brought along a potential danger of stumbling.

The report concluded that, in general there was an efficient and well-run safety system and organisation on board. In relation to the repair in the forepeak tank a risk assessment had been drawn up highlighting a number of safety points

– this was discussed at the 'tool box' meeting. However, the report suggests that there had not been sufficient focus on the risk of falling to a lower level in the tank thus recognising the danger of a fall.

It was concluded that the ship was well equipped with personal safety equipment, but that the fitter's safety helmet was knocked off during the fall even though the chin strap was fastened. The report concludes that the type of safety helmet that was used for guarding against falling objects did not offer sufficient protection against an impact to the head caused by a fall.

The purpose of this summary is purely to highlight certain human element issues arising from this incident. Those who are involved in the management and operation of ships are strongly advised to read the whole report which can be downloaded from:

www.dma.dk/Investigation/publicationsOKE/Sider/Occupationalaccidents-merchantsips.aspx - then click on:

TORM CAMILLA - Accident to seafarer on 11 November 2009

Reports & Studies

In Sickness and in Health? Good work – and how to achieve it

The Trades Union Congress (UK)

This report looks at the links between work and health, and the causes and consequences of sickness absence.

Downloadable from: www.tuc.org.uk/extras/goodwork.pdf

Human errors and non-technical skills

Captain Majid Safahani IRISL Maritime Training Institute

The aim of this paper is to review the non-technical skills on board merchant ships and whether they have been given sufficient value by regulating bodies.

Downloadable from: www.he-alert.org/documents/published/he00910.pdf

Changing role of Shipbrokers

Mr Krishna Prasad Director, Tradex Marine Global DMCCO, Dubai

This Paper looks at the role of the shipbrokers in the past, the impact of technology in the profession of ship brokering and the changing role of shipbrokers.

Downloadable from: www.he-alert.org/documents/published/he00915.pdf

Communication and the Human Element in Shipping Commerce

Mr Krishna Prasad Director, Tradex Marine Global DMCCO, Dubai

This Paper argues that, in order to make day to day working systems more versatile and efficient, scientific studies on the efficacy of ship-shore communication have to be initiated.

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