Vessel 

Modesto had been a ship’s cook for fifteen years. Despite the prolonged absences from his wife and two children he felt fortunate to have a job at sea which enabled him to support them well. After he had been at home on the west coast of Luzon, Philippines, for only three weeks the manning agency offered him a position as cook on board a large specialist cargo vessel operating between northern Europe and North America. A few days later he flew to Rotterdam to join the vessel for a six month tour of duty.

As he approached the ship from the quayside he was surprised by her unusual design. He had not previously served on this vessel and he knew nothing about her operation but, as a cook, this did not concern him. He was good at his job.

He reported to the Captain, signed articles and was directed to his cabin. He discovered that there was a multinational crew of 14 on board. The master and chief were from Northern Europe, the junior officers and a few ratings were Filipinos and the bosun and the other ratings came from Eastern Europe. Modesto’s knowledge of English was rudimentary but this had not previously been a problem.

The Safety Management System contained details of the cook’s roles and responsibilities but Modesto was surprised to find another document, not part of the SMS, which indicated that everybody was needed to work on deck during mooring operations and in order to help to retrieve and stow the ship’s portable gangway. Nothing had been said about this by the manning agency. The bosun walked him around the deck and explained his role including the labour intensive process of lifting the gangway on board before departure. Modesto had no experience of, or training in, deck work: he was issued with a hard hat, safety boots, gloves and a boiler suit that was too big for him. However he did not like to complain.

Modesto became used to the ship and his additional roles. He got on well with the other Filipinos and ratings but he found the eastern Europeans unfriendly and difficult to understand. The officers and the master did not invite conversation. Modesto had been on board for about four weeks when, early one morning, he was woken to go on deck to prepare for departure. He quickly put his deck work clothes on and went to the port side of the main deck where four other crew, two ABs, a motorman and the steward, were unshackling the gangway ready to manhandle it up and onto the main deck. He hung back and waited for instructions.

There did not appear to be anyone in charge so, when the end of the ladder appeared above the main deck, Modesto grabbed hold of a steadying line and wrapped it around his hand. The other crew continued to heave the ladder up and over the outboard railing as Modesto pulled the line to try to swing the inboard end around fore and aft. To get a better angle Modesto climbed on top of some pipework and hooked one leg over the outboard railings high above the empty cargo hold. He was a small man and he struggled to get any useful purchase. The ladder continued to be lifted, sliding up and over the outboard railings and Modesto leaned further out over the open hold. Then, suddenly, the ladder movement increased as another crewmember lent a hand. Modesto, still holding the steadying line, was pulled over the railings, falling 6 metres into the hold, and sustaining very serious injuries.
Through the last 3 series’ of Alert! bulletins, we have focussed on the various issues that can influence the interaction between a person and any other person, system or machine aboard ship. We have examined the causes and effects of, and offered some solutions for, mitigating fatigue. We have stressed the importance of effective communication; and we have explained how to avoid complacency. We have argued that careful thought at the design stage can head off slips, trips and falls before they happen. We have pointed out that seafarers have a right to enjoy a safe and secure working environment, decent working and living conditions, fair terms of employment, health protection, medical care, family support and contact with home.

We have emphasised the importance of training, experience, skills and competence. We have cautioned against too many disparate information management systems being detrimental to the safe conduct of the ship and the safe and timely delivery of its cargo.

We have also highlighted the knowledge, skills and attributes required of the various maritime stakeholder groups, with a view to developing a set of human element competencies.

Next, we offer some human element solutions, drawing on the key domains of Human Resources (HR) and Human Factors Engineering (HFE) previously featured in Alert!, Issue No. 11.

The theme of this Issue of Alert! is Human Resources – fitting the correct peg into the correct hole. The case study described on Page 1 demonstrates how accidents can occur if you don’t have the right number nor the correct mix of people with the necessary competencies and familiarity with the ship to be able to do the job.

There are some who question whether the term ‘Human Element’ is appropriate because it implies that the human is simply a constituent part of a ‘system’. The IMO describes the Human Element as: ‘A complex multi-dimensional issue that affects maritime safety, security and marine environmental protection which involves the entire spectrum of human activities performed by ships’ crews, shore-based management, regulatory bodies, recognized organizations, shipyards, legislators, and other relevant parties.’ Put simply, it is about People, and their interaction with other people, systems and machines.

The Alert! videos support these efforts to promote the awareness of people issues in the maritime industry by highlighting the key issues from each of the first 21 Alert! bulletins. They can be viewed online or downloaded, or can be embedded into a PowerPoint presentation for education/training purposes.

(www.he-alert.org/en/videos.cfm)
The ability to attract talent and to retain seafarers within an organization is one of the essential KPIs in the shipping industry. In a recent in-house survey our seafarers identified four elements which they looked out for when seeking employment: stability of employment, fair treatment, fair salaries, and training and promotion prospects. These elements may not be ground-breaking, but they are often overlooked by employers in favour of a ‘quick-fix’ solution.

Shipping Performance Indexes (SPI), Key Performance Indicators (KPI) and Performance Indicators (PI) express an organization’s ability to employ, retain and develop personnel with the required competences in order to ensure safe and efficient ship operations.

When structuring salaries and contract lengths, it is crucial to have an understanding of shipping economics, to be up to date with the global markets and regional requirements; and to understand the individual needs of each and every seafarer in the pool, and those who potentially may become part of the organization.

Recruitment and selection processes are closely linked with retention rates. Take a chaotic approach to the placement of the crew and you will struggle to retain talent. But, if you spend the additional time to plan, you will eventually reap the rewards. The theme, therefore, is to refrain from quick fixes and opt for a long term approach when it comes to planning and, consecutively, retention.

The process should start with open, two-way communication with seafarers, giving clear information about company goals, future placements, promotion prospects and company intentions – all addressed in a clear and transparent way. It sends the right message across the organization and beyond - to secure a long-term commitment from seafarers, the employer must show commitment to them.

Some of the factors allowing attraction and retention of seafarers are highlighted in the centrespread feature on pages 4/5.

The Shipping KPI Standard

...as it relates to HR management performance

<table>
<thead>
<tr>
<th>KPI</th>
<th>PI</th>
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<tr>
<td>Crew disciplinary frequency - The ability of management to maintain discipline</td>
<td>A: Number of absconded crew</td>
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<td></td>
<td>B: Number of charges of criminal offences</td>
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<td></td>
<td>C: Number of cases where drugs or alcohol is abused</td>
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<td>D: Number of dismissed crew</td>
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<td></td>
<td>E: Number of logged dismissed crew</td>
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<td>F: Total exposure hours</td>
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<td>Crew planning - The Company’s ability to relieve crew on time as well as avoiding violations of rest hour’s regulations</td>
<td>A: Number of crew not relieved on time</td>
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<td></td>
<td>B: Number of violation of rest hours</td>
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<tr>
<td>HR deficiencies - The Company’s HR related performance measured by number of deficiencies recorded during external inspections and audits</td>
<td>A: Number of HR related deficiencies</td>
</tr>
<tr>
<td></td>
<td>B: Number of recorded external inspections</td>
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<tr>
<td>Cadets per vessel - The Company’s efforts to take on new cadets</td>
<td>A: Number of cadets under training with the ship manager</td>
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<td>B: Number of vessels under technical management</td>
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<tr>
<td>Officer retention rate - The Company’s ability to retain officers within the organization</td>
<td>A: Number of terminations from whatever cause</td>
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<td>B: Number of unavoidable officer terminations</td>
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<td>C: Number of beneficial officer terminations</td>
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<td>D: Average number of officers employed</td>
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<td>Officers experience rate - The percentile experience of the officers currently onboard the vessel</td>
<td>A: Number of officer exerience points</td>
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<td>B: Number of officers onboard</td>
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<tr>
<td>Training days per officer - The Company’s commitment to maintain and enhance officers’ competence</td>
<td>A: Number of officer trainee man days</td>
</tr>
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<td></td>
<td>B: Number of officer days onboard all vessels under technical management</td>
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</tbody>
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For further information go to: www.shipping-kpi.org/
Personnel – Recruitment and retention, identification of required competencies

Plan
- Competence Management planning
- Crewing mixes
- HR KPIs
- Human resources strategy
- Human resources technical best practices
- Identification of required skills
- Maintenance of competencies

Attract
- ‘A job for life’
- Career development
- Company branding
- Contact with home
- Decent working and living conditions
- Fair salaries
- Fair terms of employment
- Fair treatment
- Family support
- Good career prospects
- Good safety record
- Happy & healthy lifestyle
- Health protection,
- High tech ships & systems
- Medical care
- Quality of life
- Reputation
- Respect
- Responsible employer
- Safe & secure working environment

Recruit
- Ability
- Aspirations
- Commitment
- Education
- Motivation
- Self discipline

Life
- (See also Alert Issue No. 4)

Induct
- Welcome in Company
- Joining The Team

Achievers
- Competencies
- Education
- Training

- Self-awareness
- Self-evaluation

- Character building
- Communication
- Direction
- Empowerment
- Teamwork

- Balanced diet
- D&A testing
- Exercise
- Habitability
- Hygiene
- Medical screening
- Recreation
- Rest

- Ergonomics
- Physical security
- Protective equipment
- Safe working practices

- Conscience
- Cultural integration
- Leadership
- Personal Ethics
- Remuneration
- Supervision

- Faith
- Religious belief
- Self-discipline

Considerations
- (See also Alert Issue No. 11)

Manning
Numbers required to do the job in both normal and emergency situations

Personnel
Ensuring the correct mix of people onboard to operate and maintain the ship and its systems

Training
Competency and familiarity with the ship and its systems

Human Resources
Creativity, crewing mixes, maintenance of competencies

Train
- Career development
- Company seminars
- Competency
- Continuous Professional Development
- Onboard continuation training
- Ship/system specific training

Mentor
- Advisor
- Experience
- Inspiration
- Leader
- Motivator
- Network enabler
- Role model
- Wisdom

Retain
- Supporter
- A job for life’
- Career development
- Career progression
- Company branding
- Contact with home
- Decent working and living conditions
- Fair salaries
- Fair terms of employment
- Fair treatment
- Family benefits
- Forward planning
- Good career prospects
- Happy & healthy lifestyle
- Health protection
- High tech ships & systems
- Medical care
- No blame culture
- Quality of life
- Respect
- Retirement planning
- Safe & secure working environment
- Stability of employment
- Support from ashore
- Training
- Two-way communication

Aptitude
- Knowledge

Proficiency

Competence

Character
- Intelligence
- Mental ability

Personality
- Sensitivity

Attitude

Adaptability
- Interoperability

Leadership

Motivation

Energy
- Physical Fitness
- Physical strength

Stamina
- Wellbeing

Happy & healthy lifestyle

Safety culture
- Security awareness

Self-actualisation

Cultural awareness

Moral values

Alert!
Competence Management is vital in the pursuit to reduce the risk of human error and companies must have the ability to identify, define, develop and improve the competence of seafarers, and those supporting them ashore, in accordance with mandatory requirements, customers’ needs and expectations and the company’s own defined business goals.

The aim must be to create expert level decision makers, which requires an individual to constantly engage with unfamiliar scenarios and tasks just beyond current levels of performance and comfort, with the guidance of teachers and coaches who can provide the individual with the feedback needed.

A number of different Competence Management systems have become available in the market over time to assist the development of seafarers in a more structured way. For example, Intertanko has developed the Tanker Officer Training Standards (TOTS), and the Society of International Gas Tanker & Terminal Operators (SIGGTO) has its own competency requirements embracing the ship/shore interface. Thome Ship Management has, since 2010, been using a DNV developed Competence Management System (known as CrewPETS), which also incorporates the TOTS and SIGGTO requirements.

The system has a number of purposes:

- To provide management with a systematic approach to competence development with regard to economy, efficiency, and effectiveness;
- To support management in the identification, implementation, administration, monitoring, and evaluation of competence development, education, and training to achieve the stated business objectives of the group;
- To reinforce the group’s commitment to Quality and its compliance with the requirements of international conventions, national legislation, and relevant industry standards;
- Setting the standard of performance for each rank in terms of knowledge, understanding, application, integration, and psychomotor skills;
- Setting a standard method of assessment of current competence;
- Planning, implementing, and monitoring competence development activities and their effectiveness;
- Documenting career development;
- Clearly defined promotion requirements;
- Structured personal training programmes, based on gaps;
- Personal participation in career review and planning for the future.

We have used our experience in the marine industry, together with that of inspections, audits, and incidents and combined this with our own business KPIs to enable us to develop the standards and elements.

There are approximately 200 competence standards per rank and some of the elements are rank specific for the type of vessel an officer is currently serving on. To complete all elements officers will need approximately 12 months in rank onboard. But, an officer cannot fail an assessment as only 3 grades are used: ‘excellent’, ‘good’ or ‘training required’.

The Thome Competence Management System is the most comprehensive framework developed to handle competencies and to assess the gap between actual competencies measured and those defined.
Addressing the human element to achieve safe and effective operation requires two underpinning sets of technical processes: those related to the acquisition and support of systems, equipment and technical resources that are ‘fit for purpose’; and those related to the correct and timely delivery of the right number of competent crew to do the job.

This article describes the technical processes which form the components of a continuous improvement cycle for human resources, the objectives of which are to:

- identify the numbers and competence of crew and support staff that need to be deployed and maintained;
- define and promulgate the intended social environment and desired human performance outcomes for the organisation;
- form the basis of staff development, which is the organisation’s operational, technical and organisational requirements for safe and effective ship operation;
- reconcile individual and collective training requirements with system and organisational technical requirements and desired human performance outcomes.

Achieving these objectives gives the following benefits for the business:

- The instruction, education, on-the-job and group training required to give staff their essential values, attitudes, knowledge and job skills are provided.
- The human resources strategy for the organisation adapts to changes in organisational needs and technical and operational context.

The figure describes the activities within the four processes that comprise the human resources continuous improvement cycle.

Properly managed, these sets of activities can not only track business needs but enable the organisation to genuinely use staff as its most important asset.

Taken from the Lloyd’s Register publication: The Human Element, Best Practice for Ship Operators

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Mentoring

...in the Maritime Industry

Murray Goldberg, Founder and CEO, Marine Learning Systems Inc

By many estimates, as much as 70% of professional knowledge comes from various forms of informal learning. There are very few forms of informal learning as effective and personal as mentoring. Mentoring is particularly applicable to the maritime industry where practices and traditions are deep and varied. It is one of the most effective ways of transferring this knowledge from one generation of mariner to the next. In addition, the maritime industry is in desperate need of attracting new, bright, young mariners. Raising awareness and knowledge of the industry through the availability of career mentors and role models can help meet this need. Despite these values, the availability of mentoring can be limited in the maritime industry. At issue is the isolation of being at sea, and the small size of most crews. When mentoring in the maritime industry does happen, it is typically short-lived because one of the participants sooner or later ends up on a different vessel or different shift. Fortunately technology has provided some solutions which are discussed later in this article.

What Isn’t Mentoring?

Before discussing what mentoring is, it is important to understand what it is not. Mentoring is not training. Training and mentoring have different goals, teach different knowledge, and require different techniques and tools.

Training should be formal, structured, standardized, and well analyzed. Its outcomes should be reliably and validly assessed. Mentoring, while extremely valuable, is not formal, structured, standardized nor well analyzed. Its outcomes are rarely assessed. Mentoring and training work together - neither is a substitute for the other.

Then what is Mentoring?

Mentoring is a confidential, trust-based, voluntary relationship between a mentor (someone with significant experience in some area) and a protégé (someone who either wishes to work in that area, or is working their way through the ranks). The idea, of course, is that the mentor is able to provide guidance based on his or her experience to help the protégé make more informed professional choices. Mentors are role models, advisors, supporters, leaders, motivators, network enablers and sources of wisdom, experience, and inspiration. The most important characteristics of a good mentor, other than expertise and experience, include a genuine desire to be helpful, good communication skills and patience.

Good mentoring relationships and interactions have a number of characteristics:

- **Long-Lived:** The value of a long-lived relationship is that the mentor has much more intimate knowledge of the personality, goals and context of their protégé. It is this intimate knowledge that enables the mentor to provide appropriate guidance.

- **Personal:** The implications of the mentor’s guidance to the life of the protégé are significant, and the personal connection creates a responsibility to the protégé to respect this significance. Likewise, protégés need to feel as though they can trust their mentor, and this trust only comes from respect and, for lack of a better word, intimacy.

- **Unconflicted:** Mentors should never be in a position of conflict or influence with respect to their protégé. While it is true that many successful mentoring relationships do not obey this rule, such relationships can never reach their full potential due to the constraints placed on open discussion.

- **Mutual benefit:** Mentoring benefits for the protégé are generally well understood. But interestingly, mentors also invariably find these to be highly satisfying and rewarding experiences. For myself, as a past mentor to a very large number of university students, I found that being a mentor challenged me, kept me sharp, and kept me connected with, and informed about the needs and issues of young academics. Clearly these four characteristics, while arguably some of the most important, only touch the surface of what makes a healthy mentoring relationship.

Conclusion

Mentoring is a timely and valuable activity in the maritime industry, yet it is underutilized due to operational constraints. All mariners and shore-side workers are encouraged to share their expertise by engaging in mentoring relationships whenever possible. The benefit to all participants and to the industry as a whole is enormous.

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