

THE REPORT

MARCH 2015
ISSUE 71

The Magazine of the International Institute of Marine Surveying



NGO SHIPBREAKING
PLATFORM: DIRTY
AND DANGEROUS
SHIPBREAKING

**THE HEAVY
LIFT LOADING
OF THE M/V
"HAPPY STAR"**

SPECIAL REPORT:
MARITIME CRIME
FIGURES FOR 2014



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Cover Image: Sammy Paglomutan, Able Bodied Seaman (AB) with BigLift Shipping. Photograph by Drew Korek



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EDITOR'S LETTER

Dear Member

Welcome to The Report Magazine
March 2015 issue number 71.

Since we rebranded and relaunched the magazine at the start of 2014, this issue is, in my opinion, the most diverse editorially we have produced and certainly contains the most pages too. So I recommend you settle back and enjoy some serious reading.

The year has certainly got off to a lively start. We have welcomed two new members to the IIMS head office team (see page 16). Business has been brisk during the first quarter as we have become active on many fronts, some of which you can read about in this issue.

The most important news item to report on is IMCA's decision to appoint MSA (IIMS's commercial subsidiary) to develop and launch an accreditation scheme for their CMID Inspectors on a five year contract. This is the culmination of 12 month's discussion and is a significant bit of work. We are well underway with the planning stages now with a view to rolling it out mid-year. This programme will firmly cement IIMS at the heart of the maritime industry.

Turn to pages 24-27 to read about the scheme, its aims and how it will work.

Membership of the Institute continues to grow. So it is fitting that we have launched an additional membership benefit in the form of the IIMS Membership Travel Scheme (see page 15).

I was fortunate enough to visit the nearby offices of Dryad Maritime in Portsmouth to see their operations room recently. Maritime surveillance, intelligence and security is a fascinating business. Their report on pages 18-22 makes for interesting reading.

My colleagues and I have been following with great interest the *Happy Star* heavy lift project that has been overseen by IIMS member Drew Korek. He has kept us up to date with some amazing photos of the project (one of which is on the front cover of this magazine). Read his account of events of the loading taken as extracts from his original survey report on pages 28-32. And if this fascinates you, keep an eye out for the film that has been made by the Discovery Channel of this project.

Under the title of 'You are Never too Old

to Learn' (pages 39-41), John Kilhams writes about the IIMS BTEC distance learning HNC and HND in Marine Surveying, the only qualification of its kind in the world to be externally awarded and recognised.

I am grateful to the ever youthful Jeffrey Casciani-Wood (aka Mog) for putting together the most thorough article entitled 'An Introduction to Rust' (pages 50-55).

Also very news worthy is confirmation that the iconic Old Library at Lloyds of London has been secured for the IIMS Conference on 7/8 September 2015. See page 13 for more details.

And finally, not a read for the faint hearted, but we commissioned NGO Shipbreaking Platform to write what turns out to be a thought provoking article on the dirty business of end-of-life shipbreaking, particularly on tidal beaches. See page 34.

Happy surveying!

Mike Schwarz
Chief Executive Officer
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Tel: +44 (0) 23 9238 5223 | Email: info@iims.org.uk | IIMS, Murrills House, 48 East Street, Portchester, Hampshire, PO16 9XS, UK | www.iims.org.uk

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THE PRESIDENT'S COLUMN

Dear IIMS Member

We can bury our heads in the sand and refuse to see that jobs for national seafarers are on the decrease in our industry with the consequences being that there will be fewer national surveyors.

Refusing to face reality and, (contrary to all analysis), the French Authorities have recently ratified the project of the new Ecole Nationale Supérieure Maritime (ENSM) with a lot of cadets who will have great difficulty finding their first embarkation under the French flag, or even to finalise their training. The specialist press announces deflagging, essential due to the cost of the flag/crew even under the international register.

For the French and the British there are still some much sought after niches such as the ferries, which are still under a tripartite agreement of government, unions and owners. And the British additionally have the offshore floating units in the North Sea!

It is the reality today that the shipowners and the shippers who are always looking to economize on salaries and vacations were a bit perturbed when the EMSA (European Safety Agency) decided to inspect the training centres in the Philippines. We can of course understand that there is no comparison!

When the wages of Filipino seafarers reach the level of ours in Europe, it will be too late - there will not be enough European trained officers on the market. They will be perhaps in para-maritime activities, but not in the marine surveying industry which requires, as its name indicates, the necessary maritime experience.

So what can be done? The best solution is still the same as it always has been - to obtain a quota of European officers on board ships belonging to European owners (independent of the flag) calling at European ports and, in addition, to refuse low cost seafarers on European ferries. *Reference : French newspapers and RMT report January 2015*

Et en Français...

Sauf à ne pas vouloir le voir et pratiquer la réaction de l'autruche, lorsque les emplois de marins nationaux diminuent, les perspectives de voir les experts maritimes travailler normalement diminuent aussi.

Masque à œillères bien vissé sur la tête, les autorités françaises ont contrairement à toutes les analyses, entériné un projet d'école nationale supérieure (ENSM) avec beaucoup d'élèves alors que l'espoir de trouver ne serait-ce que des

embarquements pour finaliser leur formation se réduit comme peau de chagrin. Les journaux spécialisés ne nous annoncent que des dépaillonnements pour des raisons essentielles de coût même sous registre international.

Pour les français et les british, il reste quelques niches à présent très recherchées comme les ferries ... qui sont encore sous un accord tripartite heureusement. Pour les british il y a aussi par chance, l'offshore Mer du Nord!

C'est cela la réalité actuelle, les armateurs et les affréteurs, après avoir un peu « flippé » lorsque l'EMSA s'en est allé inspecter les centres de formation des Philippines, recherchent la petite économie sur les salaires et les congés : Il n'y a pas photo!

Lorsque les salaires des philippins arriveront au niveau des nôtres en Europe... ce sera trop tard il n'y aura plus d'officiers de formés. Ils seront peut-être tous dans le para-maritime mais pas dans l'expertise maritime qui réclame comme son nom l'indique une certaine expérience. Que faire?

Capt. Bertrand Apperry
President

*International Institute of Marine Surveying
Master Mariner ISM and ISPS surveyor and consultant*

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MARINE NEWS



Built by Oceanco, INFINITY is the first superyacht to be delivered in 2015.

OCEANCO DELIVERS INFINITY, THE FIRST SUPERYACHT OF 2015

The new 89 metre INFINITY is the superyacht industry's first delivery in 2015 – constructed by Oceanco. Built under the project name Y710, this magnificent yacht boasts a commanding exterior design by Espen Øino and an exceptional interior design by Sinot Exclusive Yacht Design and David Kleinberg Design Associates.

True to her name, the possibilities for INFINITY are endless. Oceanco she is a go-anywhere yacht that offers safety, comfort, elegance, and the best possible lifestyle afloat. INFINITY accommodates her owners in a spectacular master suite including a private exterior deck and whirlpool, as well as 10 guests in 6 guest suites, including 2 VIP cabins. She has an outdoor beach/swimming area on the Lower Aft Deck and on the Main Deck is another spacious relaxation area featuring a circular swimming pool measuring 5m in diameter with seating all around and an

adjacent indoor wellness area. Ascending to the Upper Deck, there is an indoor/outdoor al fresco dining and entertainment area. The sundeck is dedicated to a private indoor/outdoor area with whirlpool, bar and an observation lounge.

INFINITY departed the shipyard on 3 February, when her Captain and crew together with the Oceanco team gathered to mark their successful collaboration. They joined in the Oceanco traditional good luck bite of a Dutch herring.

Headed for her first season, INFINITY is powered with twin 4,828hp/3,600kW MTU engines capable of reaching speeds of 20 knots.

DUBLIN PORT COMPANY OPENS NEW ALEXANDRA QUAY CONTAINER TERMINAL

The opening marks the completion of the third and final phase of the development of the new facility. This third phase will enable the terminal to cater for an additional 80,000 TEUs (twenty foot equivalent units) per annum

bringing the terminal's total capacity to over 400,000 TEU per annum.

The initial two phases of the project created new runways for three rows of rubber tyred gantry cranes (RTGs), a type of large mobile crane used for stacking shipping containers. The third and final phase added a fourth runway for RTGs and deepened and strengthened the quay wall to allow bigger container ships to be loaded and discharged with modern high speed ship-to-shore gantry cranes.

The terminal's operator, Burke Shipping Group, has invested in a new seventh RTG and will take delivery of a ship-to-shore gantry crane later in the year. Both of these new cranes are being supplied by Liebherr of Killarney. The finished terminal has an area of 10.7 hectares and the completed development comes at a time when the full year's trading figures for Dublin Port Company show a 7% increase for 2014, equalling the record levels of 2007.

Minister for Transport, Tourism and Sport, Paschal Donohoe, TD, said: "I congratulate Dublin Port Company on the completion of the development of this new container terminal. The €35 million investment by Dublin Port Company is significant and represents a sustainable approach to planning for the long-term capacity and infrastructure

needs of Dublin Port and its customers. The fact that trade levels for 2014 are on a par with 2007 is testament to the hard work and commitment of all at Dublin Port Company who are driving the company forward and ensuring that Dublin Port plays to its full strengths in delivering for our economy and for our continued growth and development."

Eamonn O'Reilly, Chief Executive, Dublin Port Company said: "Dublin Port Company is proud to open the newly completed Alexandra Quay Container Terminal today. We have invested €35 million to develop this facility so that Dublin Port can continue to facilitate growth in the economy and meet the needs of our customers and Dublin as a port city. This project is a clear example of how Dublin Port Company is finding innovative ways to address demand for increased capacity and modernised infrastructure using the port's existing footprint. I am confident that this timely and sustainable investment, delivered through a successful public private partnership, achieves this important objective for Dublin Port.

Lucy McCaffrey, Chairperson, Dublin Port Company said: "Dublin Port Company's Masterplan includes a commitment to use the port's existing lands to the greatest extent possible. This is a very tangible example of how Dublin Port



Dublin Port Company has officially opened its newly completed Alexandra Quay Container Terminal.

Company is continuing to act on this commitment. The completion of the Alexandra Quay Container Terminal gives Dublin Port additional container handling capacity and more modern port infrastructure that will benefit not only the port, but its customers and the wider economy in the immediate future and for years to come."

MAIB RELEASES THE REPORT ABOUT TWO FATALITIES ABOARD THE ARNISTON

The MAIB has published its report and findings on the investigation of the two fatalities due to carbon monoxide poisoning on board the Bayliner 285 named Arniston on Lake Windermere on 1 April 2013.

This tragic case, which could have easily been avoided, involved a mother and her daughter who were overcome by fumes from a portable generator, which had been installed in the engine bay. It had been modified by the addition of an exhaust which subsequently failed allowing the small sleeping area to fill with lethal carbon monoxide.

On Monday 1 April 2013, the emergency services attended the motor cruiser

Arniston on Windermere, Cumbria, where mother and her daughter (Kelly Webster aged 36 and 10 year Lauren Thornton) had been found unconscious.

The two females were taken by air ambulance to Lancaster Royal Infirmary where they were pronounced deceased. A post-mortem concluded that the cause of death was carbon monoxide poisoning.

The subsequent MAIB investigation identified that:

- The carbon monoxide poisoning had resulted from the inhalation of fumes emitted from a portable generator installed in the boat's engine bay.
- The external exhaust system fitted to the portable generator had been modified to incorporate a silencer that had become detached from both the generator and the outlet pipe to the vessel's side.
- The portable generator's engine exhaust fumes filled the engine bay and spread through gaps in an internal bulkhead into the aft cabin where the mother and daughter were asleep.
- The portable generator was not intended by its manufacturer to be installed into an enclosed space, nor was it intended to be modified in any way.
- The improvised exhaust system attached to the generator was constructed from materials and using methods that were not appropriate for this application.
- The boat's occupants were not alerted to the danger because two carbon monoxide sensors fitted to the boat at build were out of date and had been disconnected from the power supply.

The full report on the Arniston is available from the MAIB's web site.

NDA PROMOTES AMBITIOUS PLAN TO DEVELOP INDIAN INLAND WATERWAYS

Article reprinted from the Times of India

Union transport and shipping minister Nitin Gadkari said the NDA government would come out with a bill to promote Indian inland waterways transportation which would be economical and hassle-free as compared to other modes of transportation.

At present, the country has five waterways and any addition could be made only through a bill in Parliament. The Union government has identified 101 rivers across the nation where the waterways traffic will be initiated especially to move cargos.

Two rivers of Punjab too have been identified for the ambitious project wherein



NDA promotes ambitious plan to develop Indian inland waterways.

options will be explored to run sea planes and busses on water. He also talked about forming a corporation in Punjab to promote waterways transportation.

He was here to lay the foundation stones of seven road projects worth Rs 3342 crore. He said "though there is very limited scope in Punjab to promote water transportation mode due to lack of rivers in the state, a corporation will be set up to promote water transportation". He asked Punjab government to come up with a project report and an agreement will be signed to make it feasible.

Gadkari said under the proposal to develop Indian inland waterways water ports will be constructed. The bridges will have to be raised in rivers to make ships pass without any hitch. When the proposal is made operational the sea planes and water bus will run in these rivers and options are explored to run it even in a lake like the Bathinda lake. Gadkari said NDA government is also making efforts to adopt the make in India model under which dry ports and shipyards will be developed in India. He said waterways transportation is much cheaper than other modes of transport and if road transportation cost Rs 1.5 per km, Railways cost Rs 1 and water transportation cost only 30 paise.

The MAIB has published its report and findings about two fatalities aboard the Arniston.



WORLD SHIPPING COUNCIL ADVISES TO PREPARE FOR CONTAINER WEIGHT VERIFICATION

At the end of 2014, the International Maritime Organization (IMO) adopted amendments to the Safety of Life at Sea Convention (SOLAS) that will require every packed export container to have a verified container weight as a condition for loading aboard a vessel.

This requirement will become legally binding on July 1, 2016.

All parties involved in the international transportation of maritime containers – including shippers, freight forwarders, packers, NVOCCs, carriers, and marine terminal operators – will need to take measures to ensure that they are prepared to fulfill the new SOLAS regulatory requirement before the implementation date arrives. There currently is more than a year to get ready. That time should not be wasted. All parties should use the time that is available to understand what will be required of them, and to prepare to be able to meet those requirements before July 1, 2016.

In order to help promote an understanding of these SOLAS amendments, the World Shipping Council has released a three page synopsis of what the SOLAS requirement contains. That synopsis, along with the text of the SOLAS requirements, can be found at www.worldshipping.org.

Fincantieri has laid the keel for the luxurious Seven Seas Explorer for Regent Seven Seas Cruises.

FINCANTIERI LAYS KEEL FOR THE SEVEN SEAS EXPLORER

The first building block for Seven Seas Explorer was placed on 21 January 2015 during a special keel laying ceremony at the Fincantieri shipyard in Genoa, Italy. The keel laying signals a significant milestone in the construction for what will be the most luxurious ship ever built, and brings the vessel one step closer to its July 2016 maiden voyage.

In a ceremony befitting of the world's most luxurious ship, a sleek black Rolls Royce Phantom transported the three symbolic coins to the keel laying event. Upon arrival, a dapper butler emerged with a red velvet pillow carrying the coins to be welded into the keel, including a rare 1921 U.S. silver coin known as the Peace Dollar symbolizing the safe passage of Seven Seas Explorer; a 1959 silver Italian Lire representing the year the Fincantieri shipyard was established; and a commemorative coin specially minted for this occasion.

Jason Montague, president and chief operating officer for Regent Seven Seas Cruise, Robin Lindsay, executive vice president of vessel operations and

Franco Semeraro, senior vice president of hotel operations welded the coins into the ship's keel before the building block was lowered into place in the dry dock.

"With construction beginning in earnest today, we took a major step closer to realizing our vision, to provide our guests with a vessel that will be hailed as the most luxurious ship ever built," said Montague. "Every inch of the Seven Seas Explorer will exude elegance and grandeur, and that extends to all aspects of the ship from the lavish suites to the gourmet restaurants and stylish public spaces. We even ensured that the keel coins convey a sense of luxury."

At 56,000 gross-registered tons and carrying only 750 guests, Seven Seas Explorer will boast one of the highest space ratios in the cruise industry and among the highest staff-to-guest ratio, further strengthening Regent Seven Seas Cruises' widely recognized position as the leader in the luxury cruise segment. World-renowned architectural interior design firms Tillberg Design AB, RTKL Associates and ICRAVE are designing the vessel. Seven Seas Explorer will join the award-winning Regent Seven Seas Cruises fleet in the summer of 2016.



Fred van Beers who has been appointed as the new CEO of shipbuilder Blohm+Voss.

BLOHM+VOSS APPOINTS NEW CHIEF EXECUTIVE

Blohm+Voss has appointed Fred van Beers as its Chief Executive Officer Management Board (CEO). As of 1 March 2015, Fred van Beers will take over from Dr Herbert Aly as CEO to lead Blohm+Voss' growth strategy. His focus will be on developing the luxury yacht business. He will also work to strengthen the leading position of Blohm+Voss in general repairs and conversions with a specific focus for cruise ships and vessels for the off-shore industry.

Fred van Beers (52) has held senior leadership positions in the maritime industry for more than 15 years. He joins Blohm+Voss from his current position as Vice President Services Northern Europe at Wärtsilä, the global leader in complete lifecycle power solutions for the maritime industry and energy markets with a presence in more than 70 countries.

Fred van Beers is a qualified ship engineer, went to sea for four years, and has led all stages of design, engineering, production and aftermarket services. He has a proven track record in delivering profitable sales growth.



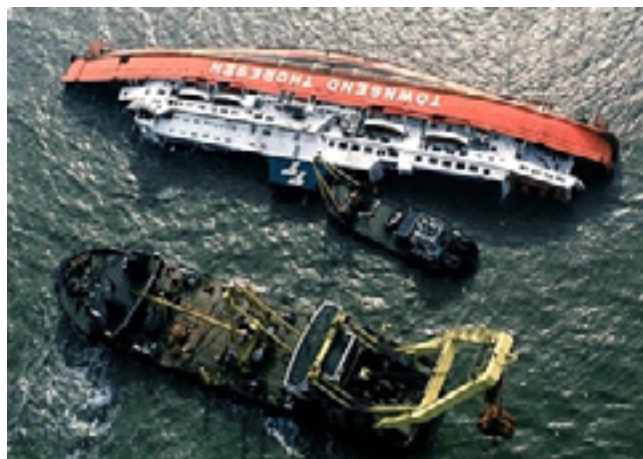
Throughout his career at Wärtsilä and his positions in various maritime industry organisations in the Netherlands and Europe, Fred van Beers built up an extensive international network within the community of yacht and ship owners, yacht designers, shipyards and the maritime supply industry. For the past 20 years delivery of systems and services for yachts has been part of Fred van Beers his responsibilities.

"I admire Blohm+Voss for having delivered some of the most iconic yachts over the last 80 years – ranging from the SAVARONA delivered in 1931 to the GRACEFUL in 2014. I am committed to highest quality engineering and project management. I share Blohm+Voss' strategic vision and look forward to further developing the business with my new colleagues", said Fred van Beers.

Dr Herbert Aly joined Blohm+Voss as a Managing Director in 2004 and became Spokesman of the Management Board in 2008. He successfully focused the business on the three areas: cruise ships, off-shore units and yachts. Dr Aly initiated the change of ownership in 2012 when Blohm+Voss' civil business was acquired by funds advised by Star Capital Partners and the members of the management team. Under the new ownership and as part of the strategic development of the company, the product portfolio was expanded and the sales and services business further strengthened.

Ernst von Freyberg,
Head of the Supervisory
Board of Blohm+Voss,

said, "We welcome Fred van Beers. He is an exceptionally skilled leader with a long track record in the maritime industry. As owners, we are committed to a long-term viable growth plan for Blohm+Voss. On behalf of the owners, the supervisory board and the entire team, I would like to thank Dr Herbert Aly for leading Blohm+Voss over the last years."



NAUTILUS WELCOMES PLANS TO SCRAP FERRY SAFETY RULES

Nautilus International has welcomed the UK government's decision to abandon controversial proposals to scrap ferry safety rules requiring ro-ro passenger ships to be fitted with lockers containing emergency equipment.

Following an eight-week consultation and talks between the Union and shipping minister John Hayes, the government said 'persuasive' arguments had been made in favour of retaining the regulations, which were introduced following the Herald of Free Enterprise disaster in 1987.

The regulations were developed in response to the findings of the formal

investigation into the loss of the ferry and require ro-ro passengerships to be fitted with on-deck emergency equipment lockers, containing such items as axes, crowbars, lifting gear and ladders.

'We made a robust case for these regulations to remain in place and we are pleased the minister has made the sensible decision to maintain them,' said Nautilus senior national secretary Allan Graveson.

Nautilus welcomes the decision by the UK Government to scrap ferry safety rules.

'While this is a specific UK requirement, we believe there is a strong case for the UK to take this forward internationally and regionally for all ro-ro passengerships, passengerships and other high-sided vessels such as car carriers and livestock carriers,' he added.

'We now look to the Maritime & Coastguard Agency to take this further, especially in the light of incidents such as the Costa Concordia, where passengers had to scramble down a single ladder on the side of the ship, and the capsizing of the South Korean ferry Sewol where passengers were trapped inside,' he said.

BRITISH MARINE FEDERATION SAYS GROWTH CONTINUES IN THE UK LEISURE MARINE SECTOR

According to new statistics published by the British Marine Federation at the 2015 CWM FX London Boat Show, the UK leisure marine industry sector continues to grow.

For the third consecutive year, the industry posted growth in 2013/14, with total revenue in the UK leisure, superyacht and small commercial marine industry totalling £2.93bn (a 1% increase on 2012/13).

As the UK economy entered calmer waters, the domestic marine market returned impressive growth – expanding from 62.8% of total revenue (in 2012/13) to 68% (2013/14).

This success was driven by the mid-market, says the British Marine Federation, with small and medium sized builders reporting strong growth. Signs of resilience in the sector are supported by the latest set of industry trends (June–November 2014), which show 90% of members surveyed are positive about future prospects – a 2% improvement on this time last year.

These statistics also illustrate employment in the sector has gone from strength to strength. The marine industry now supports 31,500 full time equivalent jobs in 2013/14 – a 2.7% increase compared to the previous year. This includes over 200 apprenticeship starts each year, a number set to grow through the industry's involvement in the employer led Trailblazer scheme for boatbuilding, and support



Statistics show that the UK leisure marine industry sector continues to grow.

from the Worshipful Company of Shipwrights' Apprenticeship Scheme.

Howard Pridding, chief executive of the British Marine Federation, said: "The UK leisure marine industry has continued to grow and create new jobs, in spite of the challenging environment for exports caused by the weakness of the Eurozone.

"The rising confidence of our members paints the picture of a resilient industry on the up, despite economic headwinds in challenging overseas markets.

"It is fantastic to see UK businesses across manufacturing, technology and a range of services continuing to do so well, which is reflected by another packed CWM FX London Boat Show.

"Now we want to see this continue in 2015 and for the government to get behind us even more with increased support for exporters and for apprenticeships."



NEW RECREATIONAL CRAFT DIRECTIVE LAUNCHES IN 2016

There is a brand new Recreational Craft Directive (RCD) applicable from the 18th January 2016.

After this date the old Recreational Craft Directive 94/25/EC (which was amended to become 2003/44/EC) will be repealed. There is a further one year transitional period whereby certificates to both Directives will be accepted (until 18th January 2017) and there is also an extra period (till 18th January 2020) for small and medium sized enterprises to comply with stage 1.

In order to prepare for the new Recreational Craft Directive, ICOMIA and the European Boating Industry (EBI) collaborated on creating a comprehensive guide whereby all the key changes to the Essential Requirements were highlighted and various informative links to further resources included. The guide is aimed at those manufacturers, distributors, importers (private and commercial) who intend to place recreational craft, marine engines and components as well as personal

There is a new Recreational Craft Directive coming in early 2016.

watercraft on the EU market (including Iceland, Norway and Switzerland).

It also contains useful information for the end user who is often unaware of the processes involved in conforming to EU regulations. The guide is available for free in pdf format as well as an Apple iPad app for purchase and includes a 'quick check version' to check formal compliance, useful for distributors or buyers, and a 'long guide' which provides detailed information.

SEAWORK INTERNATIONAL 2015 STARTS TO GATHER MOMENTUM

Seawork International 2015, Europe's largest and most successful on-the-water commercial marine and workboat exhibition and conference is set to be a record breaking event.

Improved features at Seawork International 2015 include:

- Larger registration area in Hall C
- Regular drop off shuttle bus points in Hall A and Hall C
- Enhanced and larger Seawork Social and PR hub.

With sales of exhibition space up 10% on last year, the organisers of Seawork International 2015 say the event looks set to be the busiest Seawork to date. The exhibition has much to offer visitors and exhibitors alike. Latest products, quayside and pontoon spots, restaurants, bars, networking areas, meeting rooms and the Seawork Conference.

Associations including the Association of Diving Contractors will be showing their support. Divework Tank for demonstrations, Small Business Enterprise Zone, Maritime Security Pavilion and Innovations Showcase.

This year Seawork International 2015 will be holding its annual conference on board the Ocean Scene. The vessel will be moored alongside the outdoor exhibition area ensuring that attendees will be conveniently near to the three exhibition halls, and can take time out between sessions to visit the various stands and network with business owners.

You can register for your free tickets to Seawork International 2015 from March onwards.

Seawork International 2015 sets out its stall for a bumper event this year.





Cordstrap shares 50 years of cargo security expertise with industry peers. An audience of British and Italian marine surveyors, cargo supervisors and port managers was present.

theoretical knowledge of force and balance calculations is brought into sharp focus when the practical task of securing heavy cargo on board ship is undertaken!

Essential to good securing in such an application is a high pre-tension in the lashing. Cordstrap demonstrated how to achieve this using their CT60PN pneumatic tensioner, unique in the world of cargo securing.

CORDSTRAP SURVEYORS MEETING

On the 28th and 29th of January Cordstrap shared 50 years of cargo security expertise with industry peers. Cordstrap, the global leader in the protection of cargo in transit, hosted a two day seminar which focused on sharing knowledge and experience of one-way cargo securing systems.

The gathering was held at the Cordstrap Training Center in Oostrum, The Netherlands with an audience of 21 British and Italian marine surveyors, cargo supervisors and port managers. The focus was safety; the most important common concern of all parties present.

This skilled and experienced audience take the responsibility of protecting their personnel and colleagues in the logistics chain - and beyond that their cargo itself and the environment – very seriously.

The event represented an ideal opportunity for surveyors to deepen their understanding of the one-way cargo securing systems developed by Cordstrap, which have seen explosive growth in global markets in recent years. It also provided a forum for all parties to pool their experience and agree on the proper use of polyester one-way lashing systems in practice.

There were a number of key elements to the seminar:

- Building the participants knowledge of polyester one-way cargo securing solutions
- Establishing a dialogue with those who actually survey or apply cargo lashing
- Sharing 50 years of Cordstrap expertise through practical workshops

During the event, Cordstrap's team of experts took the delegates through a number of topics related to cargo

security, underlined by vivid supporting film material. From the sinking of the Titanic in 1912 to the introduction of a new CTU Code of Practice at the end of last year, the regulatory background to cargo securing was covered; followed by an overview of transport forces, securing methods and the product range that allows Cordstrap to deliver such success stories as lashing heavy steel pipes safely on a ship's deck with 10 ton MSL lashing.

This feat illustrates the physical security and peace of mind that Cordstrap routinely delivers; a

The two days were rounded off with a lively, thoughtful question and answer session. Cordstrap's CEO Brad Tribble then closed a seminar that the participants agreed had been constructive - and deepened their understanding of some key cargo security issues.

Do you have a question on one-way polyester cargo securing? Or would you like to participate in the next seminar?

Call Cordstrap's Senior Knowledge Centre Advisor David Parrin at **0031 (0)478 519 000** or send him an email at **david.parrin@cordstrap.net**



MEMBERS' NEWS

Below:

The *Old Library* in the *Lloyds of London* building is the venue for the IIMS London Conference 2015



ICONIC VENUE SECURED FOR THE IIMS 2015 LONDON CONFERENCE

IIMS has secured the *Old Library* in the Lloyds of London building for the 2015 London Conference on 7-8 September. The meeting will be held in the historic splendour of what must surely rank as one of the city's most spectacular and famous venues in the 'Square Mile'.

The *Old Library* was built in 1928 and is one of the few libraries in London not to contain any books! The modern Lloyds building at 1 Lime Street was designed by architect Richard Rogers and built between 1978 and 1986. It incorporates the *Old Library* in to the more recent structure. Lloyds stands out as one of the most unique landmarks on the London skyline. But the *Old Library* elegantly complements the traditional with the modern architecture. This historic space is oak panelled with impressive hand-carvings of 17th and 18th century sailing vessels and has a gallery providing additional seating.

Now the process has begun to assemble the best possible line up of speakers to ensure the event is successful and memorable, befitting such an excellent venue.

The provisional schedule for the event (subject to change) is as follows.

Monday 7 September 2015

- 08.30 Registration opens
- 09.30 Conference morning session starts
- 12.45 Luncheon
- 14.00 Conference afternoon session starts
- 17.30 Conference close
- 19.15 Conference Dinner (venue to be confirmed)

Tuesday 8 September 2015

- 08.00 Registration opens and breakfast
- 08.30 Breakfast briefing
- 08.50 Conference session starts
- 11.00 Conference closes

Right:

The internationally-renowned Lloyd's building, designed by the architect Richard Rogers, is located in Central London.

At 11.00 hours delegates have a choice. There will be an organised tour (for those who want it), which will be conducted by an expert. The guide will take members to see the Lutine Bell and some of

the historical artefacts on display at Lloyds. Space will be limited.

If you prefer not to do the tour, you are invited to join other delegates and some of the IIMS head office staff at a nearby hotel for coffee and some networking followed by lunch at 12.45. The IIMS AGM will then take place starting at 14.00 in the same hotel (venue to be announced).

If you are interested in presenting a paper at the Conference please contact Sam Legg at IIMS HQ by email at info@iims.org.uk to express your interest.

Watch for details as the programme takes shape. Put the date in your diary. The IIMS head office team looks forward to welcoming many IIMS members (and non members too) at Lloyds in September.





IIMS APPOINTED TO ACCREDIT IMCA'S CMID INSPECTORS

After a lengthy period of discussion lasting the best part of twelve months, IMCA (International Marine Contractors Association) has appointed IIMS and MSA (its Marine Surveying Academy subsidiary) to manage and deliver a new and robust accreditation programme for their CMID (common marine inspection document) Inspectors. The full scale of the job is still unknown in so far as how many Inspectors may come forward for accreditation. It is believed that there are currently around 1,500 CMID Inspectors operating around the world.

This initiative has been largely driven by the industry itself. It has been born due to pressure from members that IMCA looked to find a solution. MSA has been awarded a 5 year contract and will run the scheme and deliver the required training. IIMS will become the official accrediting body. Although no formal launch date has yet been agreed, it is anticipated that the scheme will be underway by mid year.

Commenting on the news, Mike Schwarz, IIMS Chief Executive Officer said, "We are thrilled to have been appointed to run the accreditation scheme for IMCA's CMID Inspectors. This is an important and challenging piece of work that will cement IIMS firmly at the heart of the international marine and maritime industry. We have already put in a great deal

of effort behind the scenes and I look forward to our hard work bearing positive results for all involved."

A more detailed article about the accreditation programme for CMID Inspectors can be found on page 24 of this issue of The Report magazine.



IIMS PUBLISHES 2015 EVENTS CALENDAR

Whilst the IIMS events calendar for this year can all be found and read on the web site, the Institute has also produced a downloadable pdf copy of its forthcoming events for 2015.

To access the IIMS events calendar in pdf format go to <http://iims.org.uk/iims-events-calendar-for-2015> published. Print it out and pop it on your wall and use it as an aide memoir.

IIMS Australia has released the dates for a Technical Workshop and Branch AGM on June 18/19, the first it has run for some time.

Adam Brancher, Australian Branch Chair and VP IIMS, writes: "We have had lots of feedback on preferred events and formats. In general it's clear that people want to get their hands dirty and learn or revise critical skills. To this end we have decided to hold a technical workshop and

Branch AGM at the Australian Fisheries and Maritime Academy in Port Adelaide, South Australia on 18/19 June 2015. We are looking at make a 10.00 am start on the Thursday and an early afternoon finish on the Friday with an informal dinner on Thursday night locally.

Themes we are looking to cover in the Technical Workshop include:

- New regulations and opportunities for survey businesses.
- Practical NDT Heritage vessel survey (on board local vessels).
- Practical stability risk assessment.
- ISM/Safety Management systems.

Other suggestions are most welcome and there are cost effective sponsorship options available.

It will not be expensive for members to attend and will provide an excellent chance to learn, network and socialise."

For more information or to contact Adam directly about any aspect of this important event, please email: adambrancher@gmail.com

UK Small Craft Working Group Training Day

On 23 March at Portchester Sailing Club, the IIMS SCWG meets for a day's training. See the web site for further details.

Western Mediterranean Small Craft Working Group Training Day

On 1 May 2015, the Western Med SCWG is holding a one day training seminar. Following a presentation before the Palma Superyacht show opens by Mike Schwarz, IIMS Chief

Executive Officer, delegates will have the chance to look around the show. Following lunch its in to the classroom for an afternoon of marine surveyor training. Full programme details to come.

IIMS Certifying Authority Training Day

The first of two CA training days in 2015 will be held at Trafalgar Wharf (opposite the IIMS head office) on 13 May. It was agreed to go outside and get dirty this time. So we plan to do some heel testing and inclining experiments before lunch. Then off to the classroom to discuss the findings and to get an update on the MCA rules and regulations. To book your place, please call or email IIMS head office.

IIMS UAE Conference

The theme of the IIMS UAE Conference, scheduled to take place in Dubai on 24/25 November 2015 will be *Marine Loss prevention and Warranty*. Watch for more details and information coming soon.

Please note that IIMS branches also run and promote events locally under their own steam. Contact your local branch (if you have one) for more details.

What to expect and who should attend these IIMS events?

The IIMS runs these events for the benefit primarily of its members, although non members may participate too. You can pick up a valuable 5 CPD points by attending an IIMS organised event. We aim to keep the cost of attending our conferences and events reasonable and fair. We hope that the content of each event will not only interest you, but enable you to learn something new to help you in your role as a marine surveyor.

It also gives you the opportunity to network and share issues with other marine surveyors who are facing similar challenges and issues as you.

Who should attend the Small Craft Working Group (SCWG) Training Days?

Clearly from the title of the meeting, these events are aimed directly at small craft surveyors and that is reflected in the programme. The groups tend to be quite intimate. Sometimes we will invite a guest speaker to present on a particular topic. And it is not just all about marine surveying either. At some of the SCWG meetings we share business management techniques too. A small charge applies for each event. Open to all members. We particularly draw your attention to the SCWG 'Super' day on Monday 5 October, which we aim to make something special. And it is deliberately back to back with the CA training day the following day to allow small craft members to attend both.

Who should attend the Certifying Authority Training Days?

It is a requirement of all IIMS CA examiners to attend at least one of the two annual CA training days. We try to keep the training practical and topics such as heel tests and stability, tonnage surveys and MLC 2006 are usually on the programme somewhere! Other IIMS members who are not CA examiners may attend.

Who should attend the IIMS London Conference & AGM?

This prestigious event is open to all IIMS members and non members alike. The Institute comes together to deliver a day and a half of thought

provoking, high quality presentations. The Conference dinner takes place on Monday 7 September evening. And the Institute's AGM takes place in the afternoon on 8 September.

The IIMS Australia Technical Workshop in June and IIMS UAE Conference in November are open to members and non members. The same applies to the 'Workboats and Surveyors' seminar at the Seawork Exhibition in June – open to all to attend.

We look forward to welcoming you to an IIMS event soon and please do support your Institute's events in 2015.

IIMS LAUNCHES MEMBERSHIP TRAVEL SERVICE SCHEME

After discussions, IIMS has appointed Norad Travel Group to run its newly formed Membership Travel Service scheme for members. The scheme offers a range of exclusive benefits for IIMS members only.

Norad Travel Group is recognised as one of the UK's leading independent marine travel companies providing dedicated maritime travel services. The company was formed in 1981 and the Marine Division started in 2009 after successful client gains in the superyacht and marine survey area.

They have seen rapid growth due in the main to their speed of response, competitive airfares and support services both in their day office and 24/7 Emergency Centre. Norad's client base includes customers operating in numerous marine sectors notably oil and gas, cruise ships, marine survey, shipbuilding, superyachts and crew movement.

The Norad team of Marine Specialists are based in their Liss (UK) European Headquarters. They operate alongside their Global partners in Greece, The Philippines, India, UK, Ukraine, South Africa and Australia. Norad Travel Management holds marine fare contracts with all major airlines.

The exclusive benefits offered to IIMS members include:

- **Dedicated Marine Division**
- **Exclusive email address: marine@noradtravel.biz**
- **Dedicated named personnel to manage your international trip plans**
- **Specially discounted fares with over 50 airlines**
- **Double baggage allowance**
- **Up to 50% cheaper than published airfares**
- **Full service including Air, Airport Parking, Airport Lounge Passes, Car Hire, Hotels, Passports & Visa**
- **Centralised 'one-stop-shop' service**
- **All travellers passport details, travel preferences, Seaman's books etc. will be logged on our systems and automatically entered into the reservation every time you travel**

- **Fast Response times**
- **Guaranteed and faster than booking via the web.**
- **24-Hour Emergency Service**
- **Available 24/7, 52 weeks a year**
- **Global Traveller Tracking**
- **Compliant with the Corporate Manslaughter Act**
- **Security Alerts**
- **FREE Mobile Itinerary App**
- **Information on the move**
- **Travel Expenditure Reports**
- **Online MI Reporting**
- **Multi-currency Payments**
- **Billing accepted in Sterling, Euros and Swiss Francs**
- **Lowest Fare Guarantee**

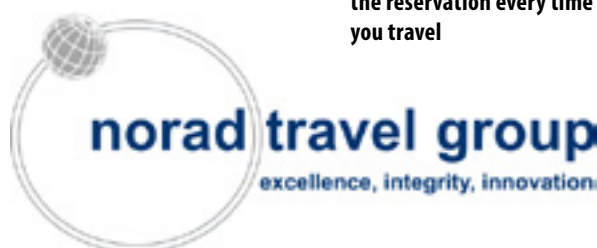
Why not make contact for a quotation for your travel requirements? Norad's UK office can take your telephone calls on +44 (0) 1730 894700 from 08.30-18.00 (GMT) Monday to Friday, or any time by email on: marine@noradtravel.biz

NEW IN-COUNTRY REPRESENTATIVE FOR MOROCCO

Capt. Fouad Habibi has been appointed as the in country representative for Morocco. He joined IIMS as a Full Member in January 2013. A few months later he was appointed as a 'supporting member' for the London Maritime Arbitrators Association (LMAA) representing the North-West Africa region within the Association.

In 2014, the IIMS members in Morocco elected Capt. Habibi as President of the National Association of Marine Surveyors. These members are professionals who voluntarily lend their support to the achievement of the newly born association, the main objective of which is to enhance the standards of marine surveying and to improve the level of maritime education in Morocco.

Going through a rigorous application process, which



Norad Travel Group to run its newly formed Membership Travel Service scheme for IIMS members.

lasted 14 months, this group of veterans led by their elected President, successfully convinced The Institute of Chartered Shipbrokers to accredit the first teaching and examination centre covering the North-West Africa in Casablanca. The Institute of Chartered Shipbrokers (ICS) is the only internationally recognised professional body in the commercial maritime arena and it represents shipbrokers, ship managers and agents throughout the world.



Capt. Habibi, who is located in the city of Safi, Morocco, is committed to bringing African marine surveyors to be more involved in the Institute's activities, education programme and events.

NEW FACES AT IIMS HQ

There are a couple of important changes to report at the IIMS head office in Portchester.

Those members who are involved with the Certifying Authority work that the IIMS does will be very familiar with Carol Allen, who was the Certifying Authority Administrator.

Sadly after a period of 18 months, Carol has decided to leave for pastures new, but not in the marine field. During her time with the IIMS, Carol has made significant strides in her area of operation and leaves the CA systems and procedures in a better place. We shall miss Carol, who left on Friday 27 February.

Tania Bernice has been appointed to replace Carol and joined the Institute on Monday 9 February. Tania brings with her 17 years of senior administration experience gained within a government department. We wish her well in her new role.

The wholly owned subsidiary of the IIMS, the Marine Surveying Academy, started to gather momentum towards the end of 2014. The RMCI (Registered Marine Coatings Course) is now well underway and half a dozen are scheduled for 2015. Hilary Excell has joined the team with a remit to develop the MSA as a commercial business. Initially she will be working on a part time basis two days a week, increasing to four days a week as the business develops. Hilary brings with her a wealth of training and project management experience that will be hugely beneficial to the MSA. And yes, if you thought you recognised her surname, she is the wife of John Excell – the IIMS Chairman of Small Craft Surveying.



*IIMS branches out into road transport!!
Photo taken by eagle eyed IIMS member Luc Verley in Singapore.*

OBITUARIES

News has reached the IIMS head office of two sad deaths.

Firstly that of Capt. Cyril Asota, a long standing member of the Institute.

Capt. Asota joined the Institute as an Associate member in May 1995, upgrading to Full membership in October 2003. He was a regular attendee at the Annual IIMS Conferences, attending each year from 2008 to 2012 inclusive. Capt. Asota was a very pleasant, approachable member who took the time to communicate with other surveyors and is remembered by IIMS staff with fondness.

Capt. Asota also participated in various training seminars relating to expert evidence in the courtroom and arbitration.

On behalf of the Institute's staff and members, we would like to send condolences to Capt. Asota's family, friends and colleagues.

Secondly that of John Harding who joined IIMS on the 20th February 2004 as a Full Member.

His specialisations covered almost all areas of marine surveying particularly beach landings for landing craft / barges with oilfield and mining equipment. His company Spica Marine Inspections Ltd., is based in Mombasa, Kenya. He was a member of the Institute of Loss Adjusters and Risk Surveyors in Kenya.

John became a Supporting Member in March 2013 due to his imminent retirement but continued to be very helpful on many occasions when surveyors needed assistance in his area.

Our sincere condolences are sent to his family on their loss.

*On the left: Taking on the role of CA Administrator, Tania Bernice.
On the right: Newly appointed MSA Business Manager, Hilary Excell.*

BOOKS ABOUT MARINE SURVEYING

'Marine Surveying for new motor yachts' by Capt. Mark Souter

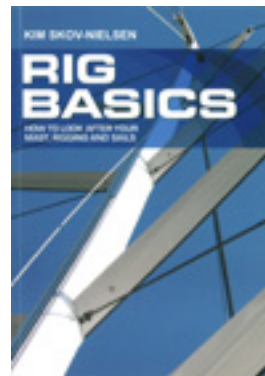
Reviewing this nearly 400 page hardback book, John Kilhams said, "This is an interesting book and approaches the marine surveying subject from a new angle. Marine surveyors are often surveying used or second hand craft. But it is my opinion that the book would be of great assistance also to a client intending to instruct on the construction of a new vessel. The book would also be extremely useful in training potential surveyors as it covers virtually all issues which the surveyor is likely to become involved in."

Capt. Mark Souter, an IIMS member, has worked for many years as a Captain aboard superyachts and has project managed and surveyed new build yachts in the USA, Italy and Greece. He brings over



30 years experience and continues to work as a marine surveyor, lecturing, writing and participating in the world of motor yachts.

'Marine Surveying for New Motor Yachts' is published at £100, but IIMS members are eligible for a 35% (trade discount) on the book. Any book purchase enquiries should be made directly to Nerys at York Publishing Services by email at nspofforth@yps-publishing.co.uk



'Rig Basics' by Kim Skov-Nielsen

This book entitled 'Rig Basics – How to look after your mast, rigging and sails' by well known IIMS member, Kim Skov-Nielsen, has been published for a couple of years, but is still available and well worth a read.

In this book, Kim, who is an experienced professional yachtsman and active marine surveyor, provides a concise, informative and clearly written outline of what every surveyor, owner and operator must take into consideration when looking after the mast, rigging and sails. **Kim's book is available via Amazon at a cost of £11.60.**



'Running a Marine Surveying Company' published by Petrosport Ltd

This recently published book is essential reading for any marine surveyors wanting to start such a

business from scratch. For those who are running a small business, this book also acts as a reality check.

Drawing on his many years experience as a marine Surveyor, Mike Wall takes the reader through the processes involved in setting up a new company. The book covers structure, financial management and personnel management.

Running a Marine Surveying Company is priced at US\$ 125 and can be purchased directly from the Petrosport Ltd web site: petrosport.com/petrosport-books

'The Paint Inspector's Field Guide - For protective coating inspection'

Author: Lee Wilson
Edited by: Brian Goldie
Publisher: TQC Holland
No of pages: 198
Price: €110

The book comes in a small practical ring binder, easily placed in a briefcase and useful for on site activities mostly in the field of industrial coating. Pages are of a dirt shedding variety (glossy thickish paper).

Lee has included a wealth of information and useful advice both to novice and specialist. His inspection and experience notes in the text highlighting personal clarifications is well thought out and presented. He has filled a gap in the market with this handy "aide memoire". Reproduction of photographs is good and again useful practical scenes are depicted.

On the positive I believe that this is a useful reference book for our members, albeit it is primarily pointed to an industrial coating market. On the negative it is biased towards NACE/SSPC (US) standards. The marine industry utilises ISO in the majority of specifications.

Peter Morgan Hon FIIMS, MICorr, MEI



SPECIAL REPORT:

MARITIME CRIME FIGURES FOR 2014

01 Gulf of Guinea

The Gulf of Guinea saw an overall reduction in the number of incidents in 2014: a decrease of 18% when compared to 2013. Despite this overall reduction, the year saw a marked increase in the number of attacks resulting in the kidnap of senior crew from support craft and commercial vessels trading in the region. Fourteen vessels had crew taken captive last year, compared to eight vessels having crew kidnapped the previous year.

Just three product tankers were hijacked for their cargo of fuel oil during 2014, another steady decrease from a total of five such incidents in 2013 and seven in 2012. The picture could have been a different one with a further five tankers unsuccessfully attacked by heavily armed gangs during the year. The smaller number of successful attacks was, however, overshadowed by a record demonstration of criminal gang reach when Niger Delta-based pirates hijacked the Liberian flagged tanker, MT Kerala, from its Angolan anchorage – some 900nm from Nigerian waters.

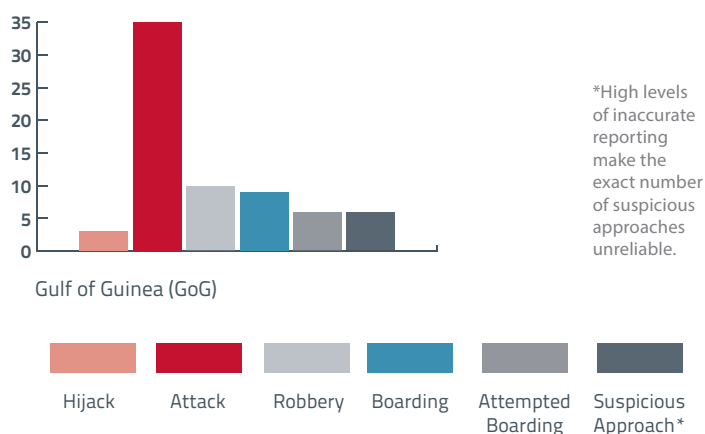
Like the kidnap of crew for ransom, cargo theft is likely to remain on the menu of Nigeria based criminal gangs in 2015. The criminal reach demonstrated with the hijack of MT Kerala, the number of successful and attempted attacks in 2014 and the lack of any evidence that such gangs have been neutralised, suggests that further attempts at cargo theft will take place in 2015 across the region.

Just two of last year's attacks occurred inside Nigeria's 12 nautical mile (nm) territorial waters, with the remainder further offshore where protection from security vessels is less available. A further 14 unsuccessful attacks took place within the Nigerian exclusive economic zone (EEZ). Analysis suggests that the vast majority of these criminal gang attacks were aimed at the kidnap of crew, especially given the areas and weaponry involved. Effective defensive measures employed by crews and security teams meant that these 14 attacks were aborted and were not added to the already higher statistics for kidnap or cargo theft.

This form of maritime crime, a simple extension of a type of crime endemic in Nigeria, is likely to continue in 2015. Victims will likely be released

unharmd as long as shipping companies and owners negotiate with the criminal gangs and pay the ransoms demanded. Whilst it is understandable that such ransoms are paid to secure the safe return of crew, such payments will encourage criminals to persist with this lucrative form of maritime crime.

Figures by high risk area in 2014



02 Horn of Africa

During 2014 there were only two confirmed attacks on MVs transiting the high risk area (HRA) of the Indian Ocean. MV Nave Atropos was attacked on 17 January south of Salalah and MV Andrea was fired upon from two skiffs 10nm off the Somali coast in February.

During the attack on MV Nave Atropos, the pirates used a previously hijacked dhow (MSV Shane Hind) as a mother ship. Despite almost daily reports of suspicious vessels (dhows, fishing boats and skiffs) these three attacks remain the only ones attributed to Somali pirates. Also of significance is the lack of disruption of potential pirate action groups (PAGs) in 2014. During 2013 over a dozen PAGs were detained and destroyed by coalition naval forces but, with the exception of MSC Shane Hind, no other PAG was detected in 2014. This is the lowest level of pirate activity in more than 15 years.

Somali piracy has declined dramatically in the last two years.

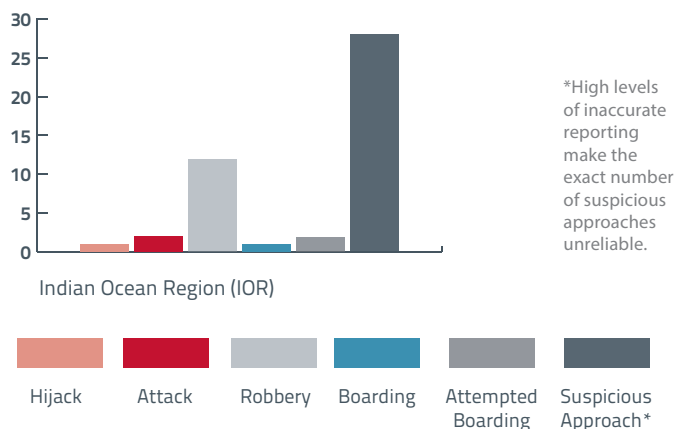
The continued presence of large numbers of coalition forces, coupled with increased use of best management practices version 4 (BMP 4) measures and the provision of privately sourced armed security teams, has led to the current situation where the threat is broadly contained, if not eradicated. The risk/reward ratio for the pirates is far less favourable now and they have lost the initiative that they once enjoyed when they were able to strike almost at will. Now, the risk of serious injury or death when attacking MVs carrying armed guards, alongside an apparent lack of suitable platforms with which to launch attacks and the positive law enforcement outcomes evidenced recently have

no doubt increased the decline of piracy. However, the conditions ashore in Somalia, which contributed to the escalation of piracy in the first place, have changed little.

With no successful hijackings of MVs since that of MT Smyrni in May 2012, the pirate hijack formula is arguably out of date, especially given the success of coalition force interdiction of open ocean piracy and the deterrent factor of embarked armed security teams – now far more prevalent than in the heyday of Somali piracy. With this in mind, the most realistic modus operandi is likely to be relatively short-range attacks with single or double skiff attacks close to the eastern shore of Somalia or, more riskily, off the northern shore of Puntland.

In 2015, it is likely that this broad containment of Somali pirates will continue, provided that the measures that have contributed to this favourable outcome continue to be in place. Remove any one of the ingredients that have resulted in the right medicine to combat the pirate threat – coalition forces, armed guards, BMP compliance – and we could see a return to higher levels of pirate action.

Figures by high risk area in 2014



03 Southeast Asia

2014 has seen another annual increase in the number of maritime crimes reported across Southeast Asia with a 21% increase in reported maritime crime across the region when compared to the figures for 2013. Dryad's figures show a total of 214 incidents compared to 177 in the previous year. It is notable that the vast majority of these incidents have taken place within 150 nm of Singapore. These figures include the dramatic rise in cargo theft of fuel from tankers operating out of Singapore. The year also saw the tragic death of a crew member as a direct result of criminal activity.

The three main areas of concern are; firstly, the western Singapore Strait, where we have seen an 80% increase in robberies, attempted robberies and vessel boardings during 2014. Secondly, in the anchorages to the east of the Horsburgh Light where petty theft and attempted theft has been rampant; despite an initiative by the Indonesian Maritime Police to patrol the area, 39 vessels have reported theft or attempted theft. Finally, in the South China Sea there have been 12 attempts at hijacking and cargo theft of fuel from small local product tankers, not all have been successful.

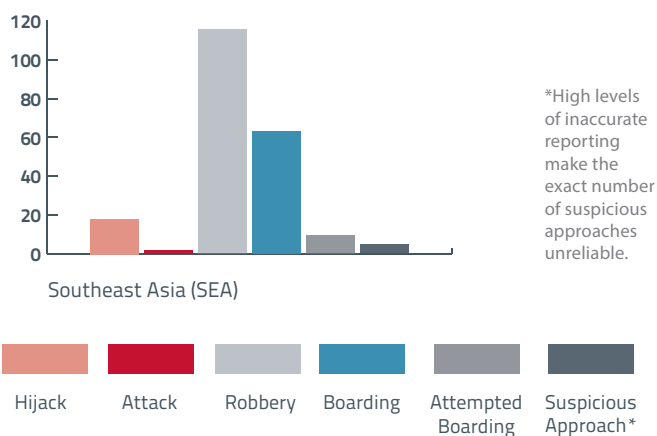
Elsewhere we have seen a rise in petty theft across the Bay of Bengal, mostly in the anchorages around Chittagong, Bangladesh and a small rise in incidents off Vietnam and the Philippines. These increases are offset by a marked reduction in petty theft in the major ports of Indonesia, with the anchorages at Belawan, Dumai,

Balikpapan, Samarinda, Taboneo and Surabaya all reporting fewer incidents than in 2013. Although it is difficult to prove with certainty, it is likely that better patrolling of these areas by Indonesian maritime security forces has resulted in this positive trend.

There is no reason to believe that the above areas will continue to feature fewer incidents, again provided that preventative security

deterrence remains in place. Unfortunately, the three main areas of concern are likely to remain so unless improvements in deterrence and law enforcement interdiction are made. A very real concern is the fact that criminal gangs are becoming more violent and, without arrest and prosecution, they will continue to operate with impunity, resulting in further injuries and possibly more deaths to mariners.

Figures by high risk area in 2014



04 Rest of World

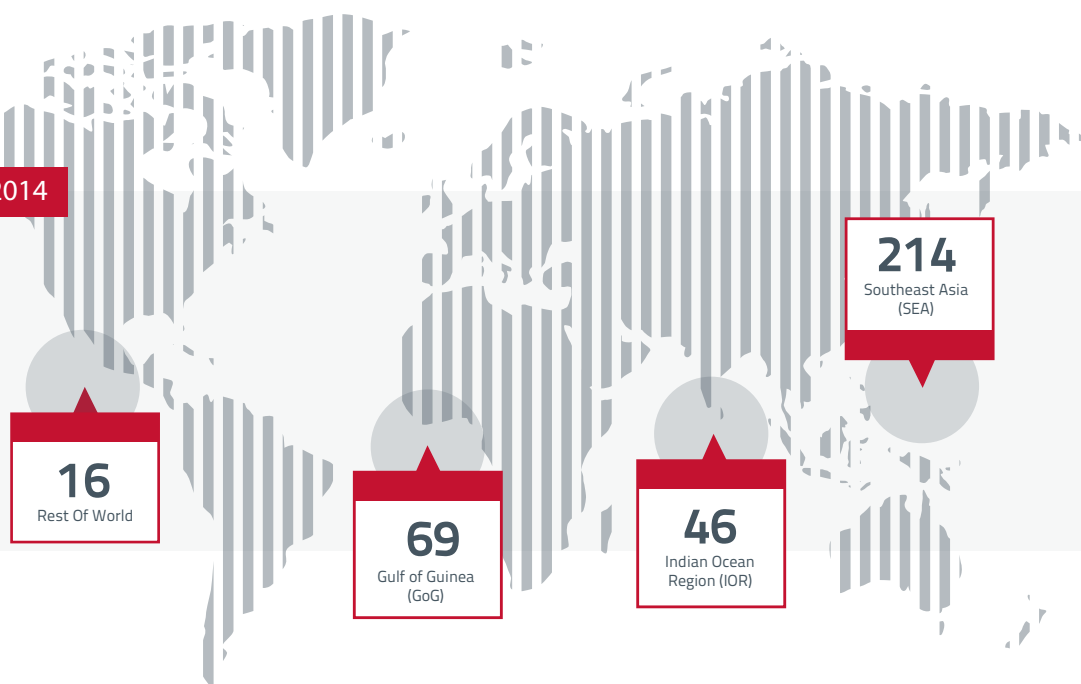
Figures for maritime crime in areas outside of those already addressed are small by comparison, with only 16 incidents on Dryad's records for 2014. Ranging from robbery alongside in South America to attacks on yachts in the Caribbean and even the hijack of a sailing vessel in the Mediterranean, these crimes highlight the need for vigilance at sea and in port, and illustrate the need for good awareness of the threats present in the maritime environment.

Other types of crime and conflict continue to affect those who rely upon the maritime environment for trade. From criminally sponsored mass migration across the Mediterranean and trade restrictions imposed in Crimea, to ongoing terrorism activity in the vicinity of shipping lanes and the impact of civil war in Libya, mariners are faced with a diverse range of threats which need to be mitigated. The targeting of MT Araevoby Libyan Air Force jets, which resulted in the deaths of two crew members off Derna on 4 January this year, clearly illustrates the need for local awareness and proper risk mitigation in all areas of operation.

Total number of incidents in 2014

Dryad figures are comprised from open and privilege sources. Figures do not include reports discounted as piracy following analysis by Dryad.

Figures correct at time of print (12/01/2015)



35+ crew kidnapped in 2014



 **2** Killed
 **35+** Kidnapped

30

Estimated total number of crew currently in captivity

05 Conclusion

The maritime industry and its mariners welcome the continued decline in Somali piracy, but would be wise to avoid any complacency that might emerge from this encouraging picture. When something like the multi-faceted approach to the piracy problem appears to be working, the industry would be ill-advised to change the medicine.

and more financially attractive in many circumstances.

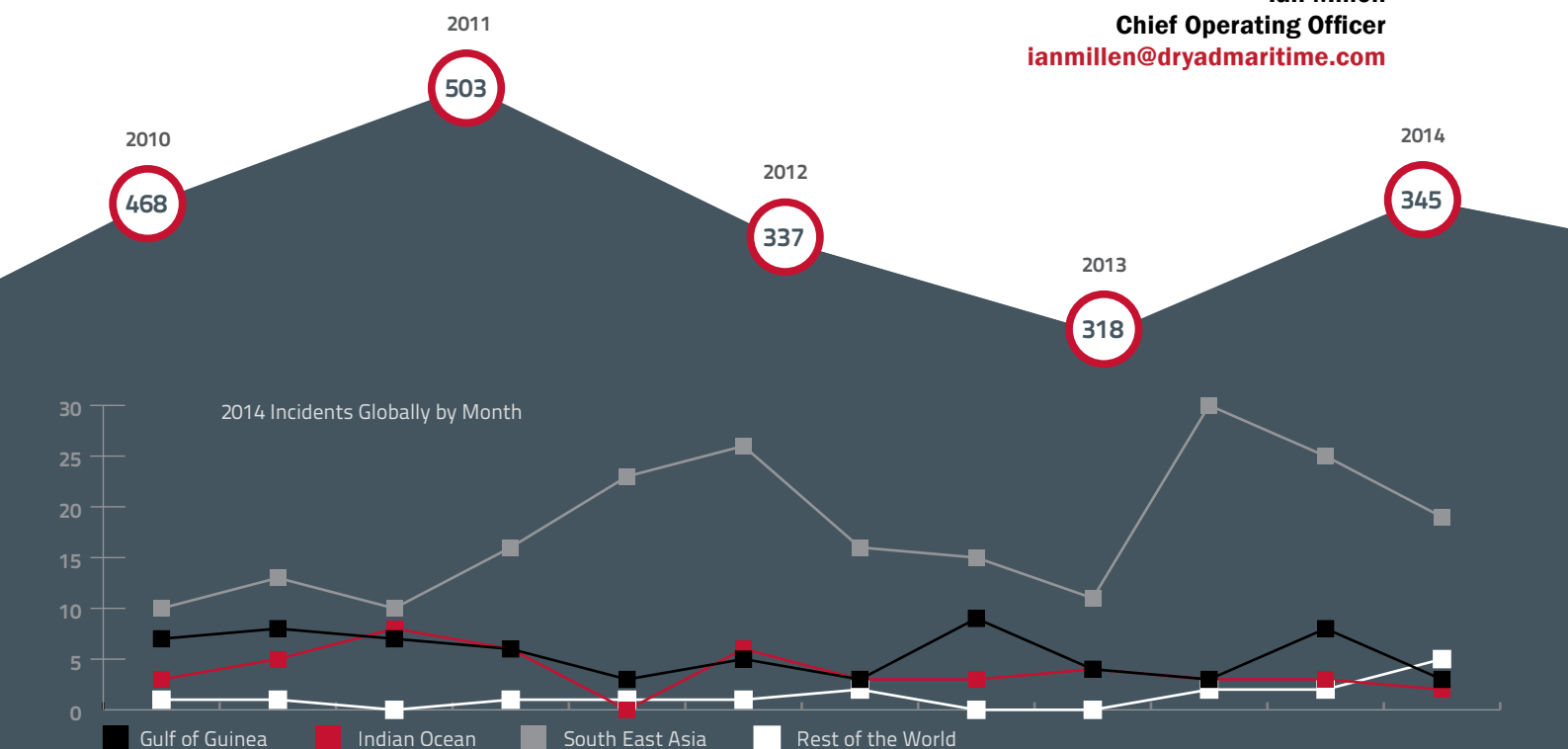
In the Gulf of Guinea and Southeast Asia, the prognosis is for more of the same with the key concern being the level of violence used by criminals in both areas. Regional issues and the nature of the threat in these areas do not lend themselves to an Indian Ocean type solution, but there is plenty that ship operators and masters can do to reduce the risk of falling victim to crime, either themselves or with professional support.

The year ahead will doubtless present new challenges for the industry, but good preparation and consideration of the diverse range of threats will hopefully result in favourable, downward trends in maritime crime. Outside of the normal areas of maritime crime we are likely to see other risks from terrorism to civil strife. Avoiding complacency, doing the hard miles on risk mitigation and investing in protecting mariners are the absolute keys to success. Let's not have another year where we are reporting the death of mariners!

Ian Millen
Chief Operating Officer
ianmillen@dryadmaritime.com

The current situation does, however, present opportunities for more innovative and cost effective approaches to risk mitigation. Armed guards play their part in the

HRA and have clearly evidenced their effectiveness in recent years, but they are not needed on all vessels, in all areas and in all environments. Good maritime domain awareness, comprehensive risk assessments and vessel monitoring can be equally effective





BY NICK VASS MIIMS

A surveyor speaks out about the Recreational Craft Directive...

I was recently asked “why are so many yacht builders who claim European Certification building boats that appear not to comply with the Recreational Craft Directive (RCD) harmonized standard on gas safety?”

The answer, from here in UK at least, is simple. Because they can easily avoid complying with this and other standards because no one will check and if they are challenged there is little that anyone can do about it!

CE ISO standards are easy to achieve and testing to the RCD standards is dubious. I have inspected many new boats that I found should not have been awarded a Certificate of Declaration of Compliance with the RCD. The RCD is not flawed. In principle it is a good idea as it levels the playing field and everyone should know what they are buying.

I recently inspected a new Cat A (Ocean) sailing yacht that was built in Spain and discovered that several ISO standards had been incorrectly applied and that the

yacht did not comply with many other ISO standards at all. The build quality was appalling. One example is that the gas locker drain hose was missing. Never fitted as the flawed design did not allow for enough space.

It transpired in the end that the Notified Body that awarded the certification and CE plate had done the barest minimum. I reported the negligent Spanish based Notified Body to the UK government Department of Trade, Innovation and Enterprise and was told by a Recreational Craft Directive Advisor that they “lacked the knowledge, understanding and interest to get involved”! That was our own government whose task it is to ensure our safety!

Instead of the DepT,I&E acting upon my complaint they emailed my letter about the Notified Body directly to the Notified Body! They then emailed it to the manufacturer who sent me a threatening email by return.

Luckily I write for yachting magazines and was able to threaten to publish a bad review on the yacht. That did the trick and the Spanish builder promptly sent over a three-man team and fixed all the defects to my and the owners satisfaction. No thanks to the UK authorities or the RCD system.

There are no measures in place in the UK to ensure that boats built abroad meet minimum standards of safety. It is now like the Wild West

and we are alone. Trading Standards used to have teeth but only if a boat was in Hampshire. However, I can't get hold of them as I recently needed their help regarding a defective new boat built in Turkey that did not have CE certification.

Having boats built in developing countries is cheaper obviously but quality control and standards of build must be carefully watched by people who know what they are doing.

Meeting CE standards is cheap compared to meeting Lloyds of old. Yachts are built up from bits such as tanks, engines and batteries, all of which come with their own CE certificate of compliance anyway. The hulls don't actually get tested properly and so poorly built boats can achieve CE Cat A and owner leave for an ocean under a false sense of security.



IIMS appointed to launch CMID Vessel Inspector accreditation scheme for IMCA



BY CHRIS BALDWIN, IMCA

IIMS has been in discussion for the past year about the possibility of launching, running and managing a robust accreditation scheme for the International Marine Contractors Association (IMCA) CMID Vessel Inspectors. Codenamed Project TRADEWINDS - effective, efficient safety and environmental protection vessel inspections for the offshore industry - the two organisations have signed a five year contract and memorandum of understanding. IIMS, through its Marine Surveying Academy (MSA) subsidiary, is now preparing the accreditation scheme for imminent launch.

Commenting on the news, Mike Schwarz, IIMS Chief Executive Officer said, "We are thrilled to have been appointed to run the accreditation scheme for IMCA's CMID Inspectors.

This is an important and challenging piece of work that will put IIMS firmly at the heart of the international marine and maritime industry. We have already put in a great deal of effort behind the scenes and I look forward to our hard work bearing positive results for all involved."

The recent spate of marine accidents in the Suez Canal (al-Safat), the Mediterranean (Norman Atlantic), off Vietnam (Bulk Jupiter) and Scotland (Cemfjord) have all served to highlight the potentially hazardous environment in which people working in the marine industry face day to day. While these incidents remain the subject of ongoing investigations these incidents must surely provide an added incentive to vessel owners and operators to ensure that the safety management systems (SMS) used onboard vessels are not only robust, but are also used by the ship's crew. This 'ownership' of the SMS by the vessel's people is a principle which is not always adhered to and where a failure to follow the safe practices and procedures occurs the risk of things going badly wrong can only be increased. Those that view safety procedures as nothing more than an inconvenience to a swifter completion of a task and simply ignore them 'to get the job done' are at risk of accusations

of negligence if their omission of a safety procedure causes injury to others. That is not to say that aversion to risk is the answer, simply that proper risk assessment and easy to follow and clearly reasonable safety measures are a necessary protection against the asymmetric impact of the stupidity or ignorance which sometimes characterises the 'human factor' in a significant number of accident cases. As required by the International Maritime Organisation (IMO) under the International Safety Management (ISM) Code, by using an effective and efficient SMS, people working onboard vessels in the offshore sector can do so with the expectation that the residual risk is as low as reasonably practicable.

As part of a vessel's SMS assurance process, an inspection or audit regime is one of the ways in which shortcomings in the system may be identified and a 'continuous improvement' regime is supported. Under an initiative called Project

TRADEWINDS, the revised IMCA M 149 Common Marine Inspection Document (CMID) and its companion the M 189 Marine Inspection for Small Workboats (MISW), have been the subject of a major review, not only by the IMCA secretariat, but also by inspectors and vessel operators who use the system. The aim has been to address the identified shortcomings of the current versions, to maintain pace with changing maritime legislative demands and to make the process more 'user friendly' for the inspector and vessel's crew alike. The aspiration is to make the CMID an integral part of the vessel's SMS by using it to support the Master and crew, by identifying any shortcomings in the system. The process, which can be termed an inspection or audit, cannot cover all aspects of the SMS but should be able to address most of the occupational health and safety elements which contribute to the environmental protection and safety assurance of the SMS.



Chris Charman, Chief Executive Officer of IMCA said, "We are delighted to be working together with the IIMS to develop and provide improvements to both the CMID process and the inspection force. These activities are

a logical evolution to the survey itself and those delivering it - enhancing quality and thus value to the offshore community. The vision IIMS has brought to the partnership, coupled with their complementary

network and skill sets, allow improvements to the process and the providers that IMCA would be unable to deliver alone.

The relationship has been positive and constructive at all times, and we are

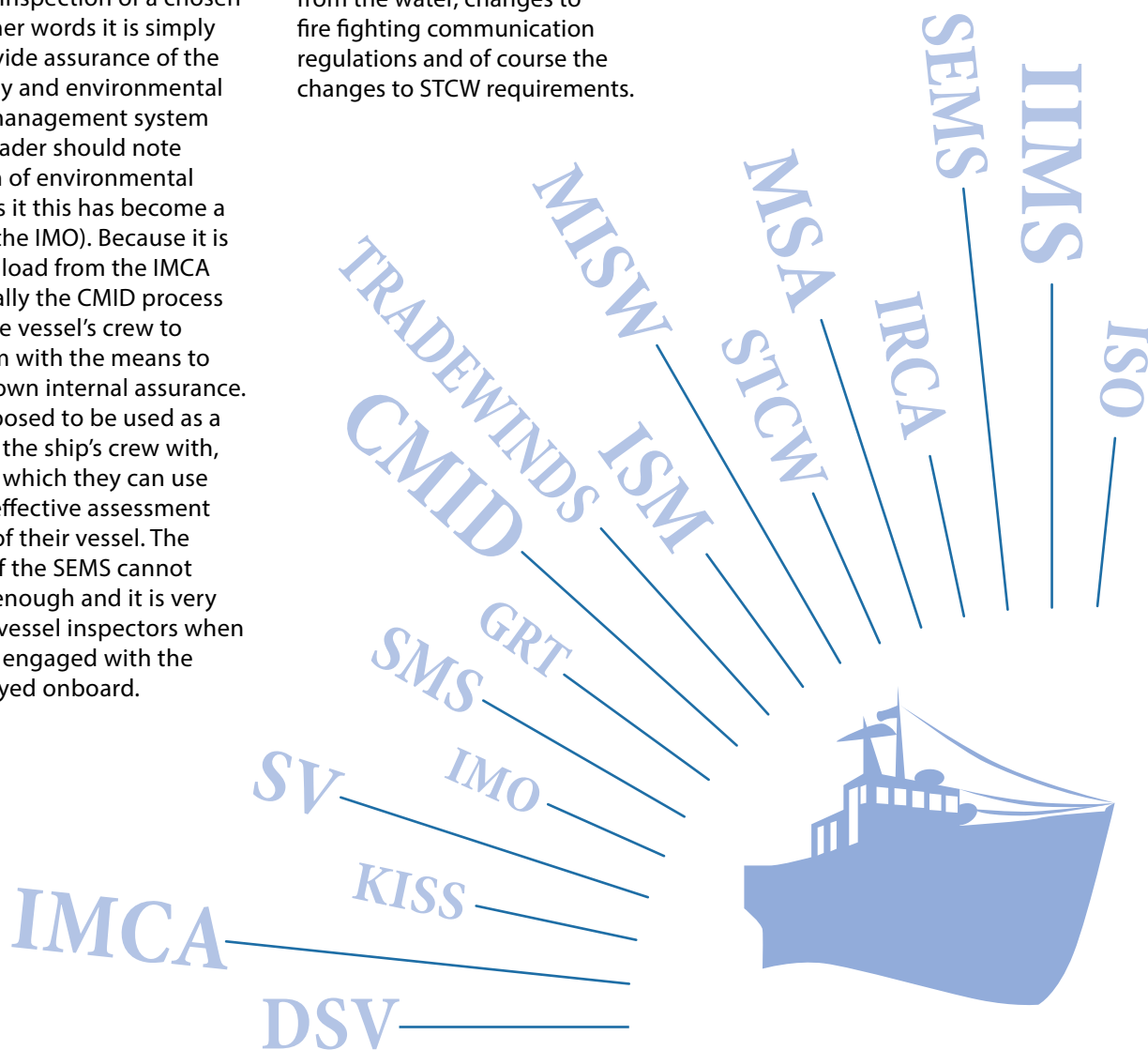
looking forward to implementing these CMID and eCMID plans throughout 2015, as well as managing and developing the database. Feedback will no doubt allow us to continue to make improvements as the new process goes live."

The purpose of the CMID process is to provide a structure for the audit or inspection of commercial vessels used in the offshore industry, conducted by vessel inspectors working on behalf of owners or clients.

Contrary to some misconceptions, the aim of the CMID system (which includes MISW) is not to assess a vessel's suitability for a task or contract, but to provide three measures of vessel safety and environmental assurance; the safety of personnel; the protection of the environment; and to visually assess the internal integrity of the vessel's hull (watertight integrity). The original concept for the CMID was that anyone with adequate experience could use the document to help them manage the inspection of a chosen vessel. In other words it is simply there to provide assurance of the vessel's safety and environmental protection management system SEMS (the reader should note the inclusion of environmental protection as it this has become a key issue at the IMO). Because it is free to download from the IMCA website, ideally the CMID process is used by the vessel's crew to provide them with the means to assess their own internal assurance. It is not supposed to be used as a cosh to beat the ship's crew with, but as a tool which they can use to make an effective assessment of the state of their vessel. The ownership of the SEMS cannot be stressed enough and it is very apparent to vessel inspectors when the crew are engaged with the SEMS employed onboard.

The CMID version 9 will see a return of the vessel supplements which were withdrawn when version 7 was introduced. The vessel supplements will cover 13 types of offshore vessel such as Diving Support Vessels (DSV) and Survey Vessels (SV) and are designed to be added to the general section of the document by the inspector as required. The ability to add more photographs to the document will be expanded and most importantly it is intended to ensure that the inappropriate generation of non-conformance 'findings' when completing non-applicable questions is dramatically reduced. The final form of the document will be longer and more details have been added in order to enable it to meet the requirements of recent regulatory changes to such things as the recovery of persons from the water, changes to fire fighting communication regulations and of course the changes to STCW requirements.

Overall IMCA has sought to make the new CMID more useful as an audit tool and it goes without saying that feedback from the user community will be both welcome and essential to its effectiveness as such. IMCA is planning to roll out the new version before the summer this year. Additionally a new App for both Android and Apple systems linking users directly to the CMID database is due to be available a short time later on in the year. The MISW will also employ the use of vessel supplements (though not as many as the CMID). Additionally, the IMCA CMID Steering Committee recently recognised that the CMID needs to apply to vessels 25m and over as well as the +500 GRT, leaving the MISW to apply to those up to 499GRT and 24 m in length.





The status of vessel inspectors was also in need of further effort to bring this component of the system up to the demands of modern work practices and recent regulatory amendments to the maritime domain. Concurrently with CMID version 9, IMCA is working with the International Institute of Marine Surveying (IIMS) to introduce an accreditation scheme for vessel inspectors and auditors using the CMID system. The accreditation scheme itself will be under the auspices of the IIMS who have similar schemes in effect with other marine industry bodies. The IIMS will include an assessment of qualifications and experience of inspectors wishing to gain accredited status. A pool of suitably qualified and experienced people will be used by IIMS to verify the credentials of potential candidates. It is planned to adopt a number of 'endorsements' for inspectors which will be aligned to the specialist knowledge required for inspections of some vessel types such as heavy lift or jack-up. Following the KISS principle (keeping it simple) – it is envisaged that there would be no more than half a dozen type endorsements. The scheme will operate on a worldwide basis with initial and refresher training courses being made available in all major regions where IMCA members are operating. These courses will be delivered by IIMS although in the early stages at least IMCA secretariat personnel will also be involved. The training will be designed to ensure that the

inspection conforms to accepted practices and it is envisaged that the ISO 19011 Guidance for Auditing Management Systems will be the obvious option for this. On completion of the training the inspector will be issued with a CMID Inspector's Manual containing many of the references and guidance on inspection procedures and practices.

Having gained accredited status vessel inspectors will be issued with an identity card embossed with both an IIMS logo and a declaration that the accreditation is recognised by IMCA (an example only is shown). This has been approved by the IMCA Overall Management Committee and the roll out for this element of the CMID process is due to be parallel with the CMID version 9. Inspectors will be issued with an IMCA Auditors Log Book and the inspector will be entitled to have their details posted on a dedicated 'CMID Inspector' website, giving details of the inspector's contact address and vessel type experience.

It is expected that Performance Assessments will commence approximately 6 – 9 months after the scheme is rolled out, carried out by IIMS certified assessors to provide the quality assurance that has hitherto been lacking from the scheme. Of course there will be a transitional phase to ensure that hard working inspectors are not disadvantaged and have plenty of time to undertake the accreditation process should they so wish.

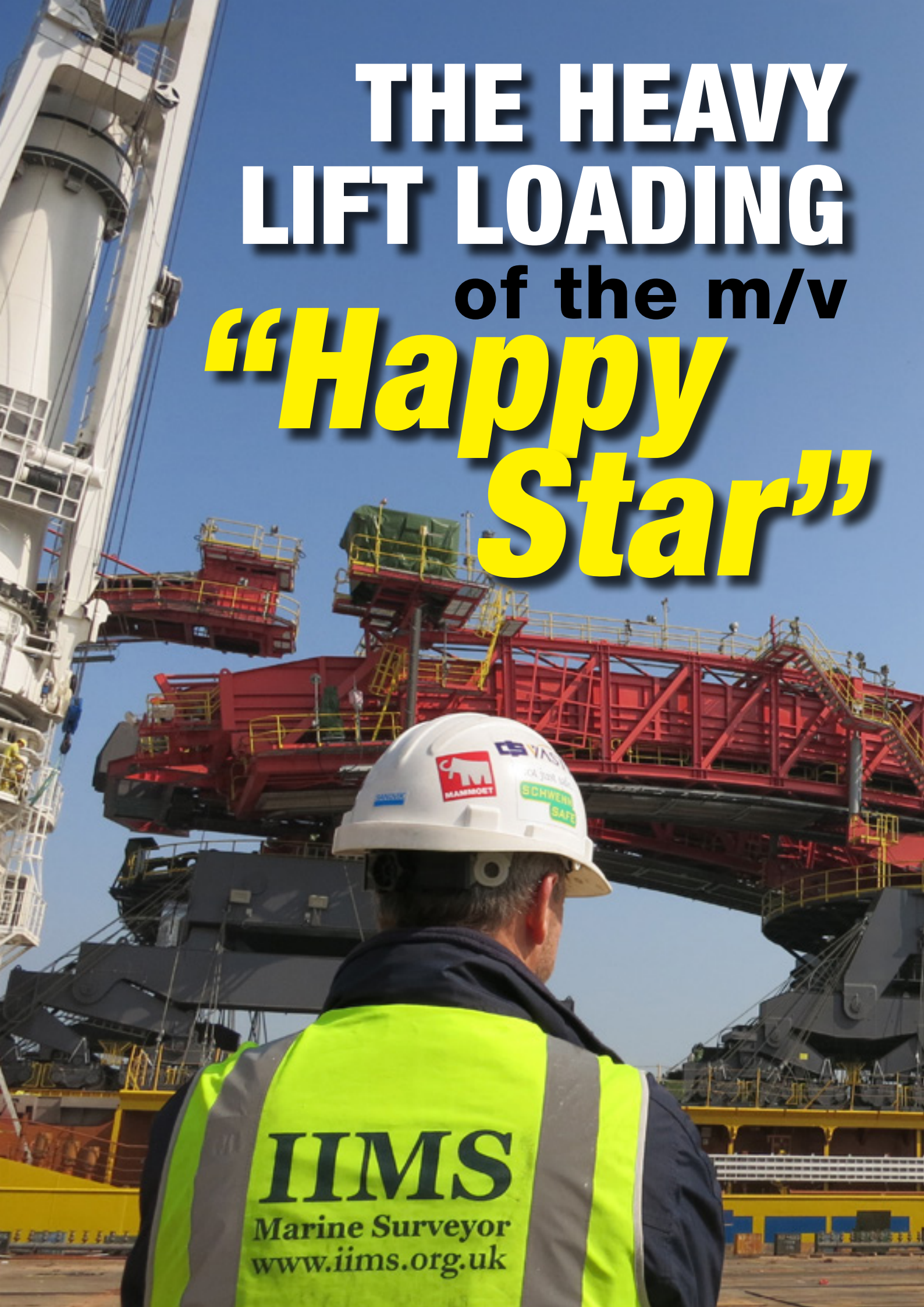


The scheme will be an optional matter for inspectors but IMCA is confident that the preference for accredited inspectors will be self-evident to both client and inspector communities. In the modern workplace such assurance systems are widely employed and in fact the scheme is very similar to the way the International Register of Chartered Auditors (IRCA) accredits health and safety inspectors. The adoption of the scheme will serve to protect and benefit all parties – owner, master, crew and inspecting organisations.

The final phase of the Project will be to have the scheme audited by a third party to provide independent assurance that the scheme is fit for purpose and delivering to measurable performance criteria. With this in place and feedback from the user community as well IMCA believes that in time and once quality has been assured we may have a case to put forward to charterers and port state control authorities alike, to make a case to reduce the current excessive frequency of vessel inspections.

There is still much to do to bring this project to the offshore community but it is hoped that it can be in effect by this summer.

THE HEAVY LIFT LOADING of the m/v *“Happy Star”*



IIMS
Marine Surveyor
www.iims.org.uk

Whilst many of us were enjoying the Christmas period in the comfort of our own homes, for one IIMS member and marine surveyor it was a Christmas with a difference. This is Drew Korek's story and account (largely using his photographs) about the 'heavy lift' loading of the *Happy Star* using extracts taken from his report with his permission.



BY Capt. ANDREW (DREW)
FRANK KOREK, MIIMS

As The Report magazine went to press, Drew had just completed overseeing the load off the ship in Quebec.

The whole project has captured the attention of the media too. This fall you will be able to watch a conclusion of this captivating project and portion of the *Happy Star* voyage from China on Discovery Channel show entitled Mighty Ship's.

During this project in China and then Canada Drew has been a willing and regular correspondent keeping the IIMS head office team up to speed with daily photos and anecdotes. Often operating in Canadian temperatures of minus 30 Celsius (and lower), Drew found his IIMS work wear essential to keep him warm and visible at all times. The last we heard, Drew was heading for a very well earned rest.



Background to and scale of the project

Sandvik Canada Inc. chartered a heavy lift vessel *Happy Star* from the BigLift Shipping BV to transport two complete shiploaders from Guangzhou, China to Quebec, Canada. Cargo operations were carried out at GSI Shipyard at Longxue Island. Ships cranes were utilized for loading and shifting of the cargo on board. Shore mobile cranes, trucks and SPMTs were used to move cargo from storage areas to the loading berth and to provide peripheral assistance during loads rigging, placement and items alignment. GSI Shipyard personnel handled cargo moves on shore with assistance of Vastwin SPMTs operator. Cargo rigging for lifting with the ship's cranes on shore side was carried out by GSI riggers working under the guidance and close supervision of the BigLift personnel. All cargo and load handling on board the vessel was carried out by ship's crew under supervision of the BigLift's load master.

Drew was appointed as Marine Warranty Surveyor by Liberty Insurance Underwriters and Sandvik Mining & Construction of Canada to attend vessel *Happy Star* whilst she lay afloat alongside at GSI Shipyard, Longxue Island, Guangzhou, China from 18th to 29th of December 2014 to ensure that loading operations were executed in a safe manner and according to the standards required and customary to such operations including compliance with the applicable lashing, rigging and cargo securing rules of Det Norske Veritas (DNV). Furthermore to observe and assure that cargo operations were carried out with care, utilizing generally accepted stevedoring practices.





About BigLift Shipping

BigLift Shipping is one of the world's leading heavy lift shipping companies, specialising in worldwide ocean transportation of heavy lift and project cargoes with a history going back to 1973. BigLift Shipping strives for innovation, excellence and operational reliability, adhering to high standards of health, safety, environment and quality, operating to strict time schedules.

BigLift Shipping comprises a team of dedicated, highly skilled professionals with years of experience and the mindset to think creatively. They careful planning, engineering, coordination and supervision skills to ensure that safe transportation is all in a day's work.

In 2013 and 2014 the vessels of the Happy S-type entered the BigLift fleet. These flag ships have a lifting capacity of two times 900 mt, combinable to 1800 mt. The length of the vessels and the forward position of the superstructure offer a single large cargo hold and a wide open deck area. The vessels have the notation for open sailing, allowing for more flexibility for large and high cargoes.

The vessels also have the highest Finnish Ice class notation. A key factor in the safe and reliable operation of these super heavy lifters is to perform cargo operations without using any stability pontoons during lifting operations. Following questions from the market, both vessels' cranes were extended to provide more lifting height and more outreach, thus offering superior lifting capabilities. The cranes on both vessels are prepared to have the flyjib mounted, extending lifting height and outreach even further.

Heavy Lift cargo consisted of two (2) complete shiploaders and wharf conveyor comprising

1. Shiploader 1 (SL01) 970 MT
2. Shiploader 2 (SL02) 970 MT
3. Tripper Car 1 (TC01)
4. Elevator Car / Tripper Car 2 (TC02)
5. Tripper Tail 1 (TT01)
6. Tripper Tail 2 (TT02)
7. 28 Conveyor Galleries, partly stacked

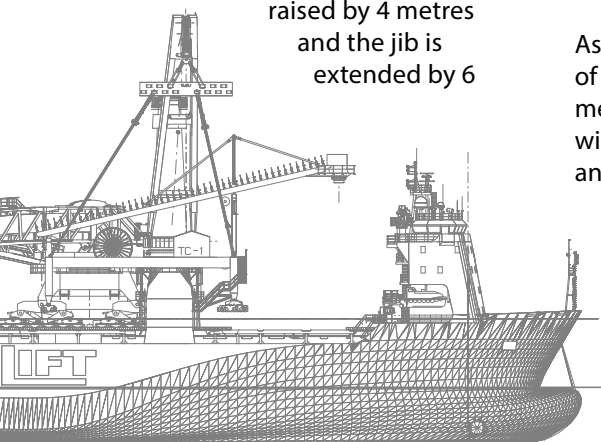
Plus an additional 73 pieces of peripheral equipment associated with this complex machinery.

Cargo weight in total:
3,047,721,24 kgs (gross weight)



About *Happy Star*

During the design phase it was decided to adapt the design of the *Happy Star* to answer the direct needs of the market. So, the crane pedestal is raised by 4 metres and the jib is extended by 6



metres, providing 10 metres more lifting height and 6 metres more outreach. This gives the vessel a crane curve which is unmatched amongst heavy lift vessels and allows cargoes to be lifted higher and further away than in the vessel's original design.

As a direct consequence, the beam of the vessel is increased to 29 metres. This provides the vessel with sufficient anti-heel capacity and stability to use the cranes to their full capacity, being 1800 mt at 25 metres metres, 1600 mt at 28 metres and 1000 mt at 41 metres with a lifting height of close to 47 metres above the main deck. The

stability is achieved without the need for a stability pontoon during loading or discharging operations.

To provide a maximum useable deck area, the weather deck extends over the full width of the vessel. It has 8 pontoon type hatch covers, with a 15 t/m² carrying capacity over the full length and beam. The tweendeck adjustable in height and it is possible to sail with open weather deck hatches on a draft of up to 8 metres. The hull was adapted to the new dimensions and, using modern design methods, special attention was given to optimizing the powering performance, resulting in a speed of 17 kn.



Drew said about the project...

"To the *Happy Star* crew for this bohemian task of superb handling and securing those monstrosities I salute you."

"The sheer amount of lashing applied to the deck cargo which can be seen on some of the photographs included in my report. Those lads worked very hard to accomplish the text book result and should be commended."

"My kudos goes to SPMT Vastwin personnel for superb, flawless handling of those giants in safe and timely fashion."

"And of course my highest commendation to GSI shipyard personnel for attending to every imaginable task on hand – and there were many!"

On a different note, Drew commented, "I have to admit I was admirably shocked seeing 15,000 GSI employees crossing the shipyard's gate

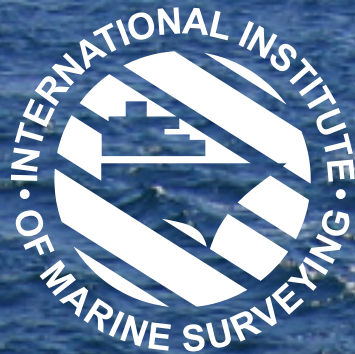
every morning and accomplishing unimaginable results in ship building."

"I have never before seen over 20 vessels growing before my eyes in the matter of few weeks."

As a conclusion, Drew was keen to give huge credit to BigLift Shipping for the intricate planning that ensured the success of this enormous undertaking and project.



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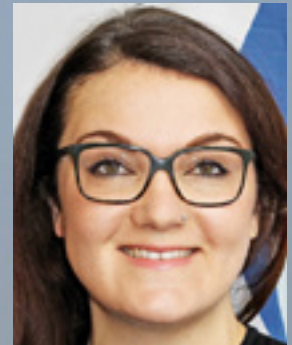
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NGO SHIPBREAKING PLATFORM:

All photos copyright © NGO Shipbreaking Platform

DIRTY AND DANGEROUS SHIPBREAKING

More than 70 percent of the world's obsolete tonnage ends up polluting the Indian sub-continent and putting workers' lives at risk. The Report Magazine invited Patrizia Heidegger, Executive Director, NGO Shipbreaking Platform to give an overview of their work. In this thought provoking article, she explains the issues and problems caused by some of the unsafe methods and procedures utilised to break end-of-life ships on tidal beaches.



BY **PATRIZIA HEIDEGGER**
EXECUTIVE DIRECTOR - NGO
SHIPBREAKING PLATFORM




Every year, more than 1,000 obsolete cargo and container ships, oil and gas tankers, passenger and ro-ro vessels have to be dismantled as they are not economically viable anymore for their owners. The NGO Shipbreaking Platform keeps track of these global shipbreaking trends: in 2014, out of a total of 1026 ships dismantled globally, 641 – representing 74% of the total gross tonnage (GT) scrapped – were sold to substandard shipbreaking facilities in India, Pakistan and Bangladesh where ships are dismantled directly on tidal beaches. None of these South Asian yards comply with international standards for safe and environmentally sound ship recycling; however, selling end-of-life vessels to the beaching yards is the most profitable choice for ship owners as the costs for clean and safe operations do not have to be taken into account. This practice allows ship owners to externalise the real costs of proper recycling onto workers, local communities and the environment in other parts of the world.

End-of-life ships contain toxic materials such as asbestos, heavy metals, PCBs, oil residues and organic waste within their structures – these pollutants can not be contained or safely removed on a tidal beach. Pakistan and Bangladesh totally lack the infrastructure to dispose or destroy the hazardous materials; in India hazardous waste streams are not transparent. In the all three countries, shipbreaking yards lack the expertise to identify asbestos and other hazardous materials, do not properly protect, train and equip staff for hazardous waste removal, and re-sell parts containing toxic materials on the local market.

Apart from hazardous waste, the demolition of the largest movable man-made structures is generally dangerous and must be conducted in a controlled manner using adequate infrastructure such as cranes as well as necessary

health and safety provisions – in 2014 the Platform reported 23 deaths and 66 severe injuries due to accidents such as explosions, workers crushed under steel plates and falling from heights on the South Asian beaches. Although there is no official documentation of injuries and fatalities in the yards and access to information is restricted, our local contacts count fatal and severe injuries. This death toll is very high compared to other industries, as the shipbreaking industry has a comparatively small work force compared to larger sectors (a few ten thousand workers each in the shipbreaking countries). Moreover, there are many undocumented deaths from accidents and occupational diseases which occur years after a worker has left the yard. Trade unionists have pointed at the alarmingly low life expectancy of shipbreaking workers.

A large, rusted ship is being dismantled on a beach. The ship's hull is heavily corroded and brown. It is positioned on a sandy beach with waves crashing against its base. The sky is clear and blue. The ship's superstructure is visible in the background.

**"NONE OF THESE SOUTH
ASIAN YARDS COMPLY WITH
INTERNATIONAL STANDARDS FOR
SAFE AND ENVIRONMENTALLY
SOUND SHIP RECYCLING"**



A particular responsibility for European ship owners

The European Union has a particular responsibility to act – 34% of the gross tonnage broken in South Asia last year was owned by European ship owners just before breaking. Altogether, European ship owners sold 285 obsolete vessels for breaking. Two thirds of these European ships – 182 ships, including many having primarily operated in European waters – were beached in South Asia. Whilst large European shipping nations such as Greece and Germany unsurprisingly top the list of 2014 worst dumping countries, selling respectively 70 and 41 large oceangoing vessels to South Asian breakers, they also top the list of ship-owning countries which sell almost exclusively to South Asian breakers, rather than to modern recyclers. Cyprus owners sold a record high 92% of their old ships to substandard yards in South Asia, German owners as much as 87% and Greek owners 76%. For a comparison: China as one of the largest ship-owning nations in the world has become more or less self-sufficient for the clean and safe recycling of ships. The Chinese government offers subsidies to Chinese ship owners who decide to sell their old vessels for dismantling in one of the modern ship recycling yards within China.

Circumvention of international waste law

In international environmental law, especially under the waste law regime of the Basel Convention, end-of-life vessels are considered as hazardous waste. Their transboundary movement therefore falls under the obligation of Prior Informed Consent (PIC) and should be reduced to a minimum between developed and developing countries. The European Union (EU) has even transposed the Basel Ban Amendment, which prohibits any export to developing countries, into community law. As a consequence, no end-of-life vessels from Europe should reach a beach in South Asia where the hazardous waste is not properly disposed of or destroyed. However, ship owners circumvent the law by not informing authorities in the EU about their intent to sell a vessel, and by handing over an end-of-life vessel to a middle man once they are outside the EU or already on the high seas. Even ships owned by European governments, in the last years for instance France, Bulgaria or Poland, have been sent to beaching facilities in what the Platform considers a breach of the EU Waste Shipment Regulation (WSR).

If authorities are informed on time about the intentions of an owner to sell an end-of-life vessel, they may also stop an illegal export. In

2012, German authorities halted the “Northern Vitality” in the port of Wilhelmshaven, after the Platform had informed the environment ministry that the vessel had been sold for breaking in India. In summer 2014, the Belgian authorities arrested the “Global Spirit” in the port of Antwerp, after the Platform had informed them that the car carrier had been sold for demolition in India. The ship owner was obliged to find a legal solution and the vessel was finally sold for clean and safe recycling in Turkey.

As the Basel Convention and the laws derived from it are regularly circumvented by ship owners, the International Maritime Organisation (IMO) developed a new international treaty focusing on ship recycling only. States adopted the Hong Kong Convention for the Safe and Environmentally Sound Recycling of Ships in 2009. The IMO has also developed further guidance such as the 2012 Guidelines for ship recycling facilities. However, the Convention has not yet entered into force due to a very slow ratification process and will most probably not do so in the next decade. Therefore, the Convention does little to change the situation in a reasonable time span. Even worse, ship owners use it as a fig leaf to shy away from their responsibilities today. When being criticised for their malpractice, they can easily refer to a future convention, which does not put any obligation on them, not today and not tomorrow. The Platform asks all ship owners to already adhere to a voluntary code of conduct, a ship recycling policy, and to make sure they do not sell their vessels for breaking in substandard yards. This approach has been adopted by leading ship owners such as Maersk from Denmark or Hapag Lloyd from Germany, companies which have their end-of-life vessels recycled in China under strict monitoring.

Shipbreaking: no safety for workers

In the South Asian shipbreaking countries, authorities do not strictly enforce existing environmental and safety rules. Only after campaigns by non-governmental organisations (NGOs) in Europe, North America and South Asia and successful court cases at the Supreme Courts in India and Bangladesh, did the governments start to seek regulation for the yards. In Bangladesh, the industry had operated without being acknowledged by the authorities. Despite these developments, the day labourers who cut down the ships are still mostly unskilled migrant workers and are not trained well to properly use personal protective equipment (PPE), to react correctly in emergency situations, and to apply proper procedures. With regards to hazardous materials, not enough care is given to the protection of workers' health and safety. For instance, many workers in the Bangladesh shipbreaking yards still go barefoot or just wear plastic slippers. Also in the Indian shipbreaking yards, workers active on the ships do not wear safety harnesses, and those cutting steel parts and thick layers of toxic paints are exposed to the fumes with any protection for the respiratory system. Due to the lack of heavy lifting equipment, poor training of workers and foremen, inadequate security measures against falling from heights, lack of procedures for hot work and work in confined spaces, as well as the disregard for proper PPEs, accidents and the exposure to hazardous substances are a still major threat to workers in the shipbreaking yards.

Dire working and living conditions

In all three shipbreaking countries, the largest part of the workforce in the yards consists of poor migrant workers coming from other parts of the country. They do not have contracts and do not have an employment relationship with the yard. A so-called contractor brings them in and pays them. Overtime and weekend work are often not paid and the workers do not enjoy any holidays. They either set up shacks around the shipbreaking yards or rent small huts from the local population – often the accommodation does not have clean drinking water or sanitation, so that living conditions are not hygienic. This is particularly alarming when workers live with their families. In Bangladesh, up to one fourth of the workforce consists of children and adolescent workers. Employing workers under 18 is illegal in Bangladesh for hazardous industries and during night shift. Still, the Platform has regularly documented that teenage boys are especially used for highly dangerous work during the night when not labour inspectors pass by.

Why old ships are hazardous waste

The ships' structures contain toxic substances such as asbestos, heavy metals, organotins, such as the extremely toxic organic tin compound tributyltin (TBT) used in anti-fouling paints, polychlorinated organic compounds (PCBs), by-products of combustion such as polycyclic aromatic hydrocarbons (PAHs), dioxins and furans. Moreover, a lot of these hazardous substances are released into the environment and contaminate seawater, the sediments and the air. A 2010 World Bank report titled "The Ship Breaking and Recycling Industry in Bangladesh and Pakistan" described widespread soil contamination in Bangladesh and Pakistan with deposits of cadmium, chromium, lead, and mercury. The lead and oil concentrations were a major concern of the World Bank report as well. Especially asbestos would remain a significant long-term problem and PCBs would still occur in older vessels and naval vessels, the report argued. It found that heavy metals in paints pollute the work environment and that large volumes of oil and oily water would have to be properly managed.



Moreover, the World Bank report estimated that in Bangladesh millions of tons of hazardous waste from shipbreaking pile up in a couple of years: 79.000t of asbestos, 240.000t of PCBs mainly in cables, 210.000t of ozone-depleting substances, 69.200t of paints containing heavy metals, TBT and PCBs, 678t of heavy metals, nearly 2 million cubic meters of liquid organic waste and a million ton of other hazardous wastes, mainly sewage.

Apart from the contamination, shipbreaking causes further environmental damage. In Bangladesh, ten thousand mangrove trees – planted with the help of the international community in order to protect the coast from cyclones – were cut down illegally to make space for the yards. Studies have shown that the biodiversity in fish and crustacean has decreased sharply along the Chittagong coast in Bangladesh, endangering fishermen's livelihoods.

Off the beach!

We and our member organisations in South Asia emphasize that shipbreaking should not take place directly on the beaches, but in proper industrial platforms. As long as shipbreaking is practiced on sandy or muddy beaches with the tide coming in twice a day, the full containment of pollutants and the adequate management of hazardous wastes are not possible. Moreover, the beaches prevent the use of heavy lifting gear in order to make work safer and less laborious for the workers. Finally, the beaching method does not allow for adequate emergency response by ambulances or fire fighters in cases of accidents as no vehicle can reach out directly to a vessel stuck in the sand. Therefore, we promote a transition towards cleaner and safer methods compared to those already used in other ship recycling countries in Europe, in Turkey or China.



The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, especially in its Guidelines on ship dismantling, has proposed to discard beach-breaking for stable structures. Nearly all major ship owning countries as well as the shipbreaking countries in South Asia have ratified the Basel Convention. What is more, also the European Union, in particular the European Commission and the European Parliament, have made it very clear during the legislative process for the new EU Ship Recycling Regulation, that the current substandard beaching method will not be acceptable anymore for European ships in the future. However, even if some minor improvements have been achieved in some shipbreaking yards over the past years, we do not yet see any structural change in South Asian yards while the majority of European-owned ships still end up there.

Clean and safe ship recycling

Already today, there are cleaner and safer methods for ship recycling. Turkey practices the landing method, where ships are partly pulled ashore and then dismantled both with floating and land-based cranes. Smaller metal pieces are cut down on an impermeable floor in order to avoid the leakage of pollutants into the water and the sediments. If practiced correctly, the landing method ensures that all steps of recycling a ship are made over a drained and contained area. A second method practiced in China, by European recyclers for example in the UK, Denmark or Belgium, as well as in North America, is the pier-side method. The vessel is brought along a quay and dismantled by cranes from top to bottom. Once only the lower part of the hull is left, it is pulled into a slipway, which can be closed off from the waterside in order to prevent spills. This



method is used by most of the modern yards. Finally, there is the possibility to use a dry dock for ship recycling. Chinese, French and British facilities, for instance, apply this method, which is obviously the safest and cleanest method of ship recycling. However, ship owners mainly choose the most lucrative method in order to retrieve the biggest possible profit from the sale of their end-of-life vessel: beaching.

Governments in South Asia have to trigger long-term financial investments in the yards, in built structures, impermeable floors, machinery, asbestos removal facilities, waste storage and systems to manage hazardous wastes. We have been asking the developed, ship-owning states to assist the shipbreaking countries on their way to real structural change. So far, neither the South Asian governments nor the ship-owning countries have implemented a big step forward. There are a couple of development projects seeking to

improve the conditions; however, none of them aims at fundamentally changing the current situation and motivating South Asian shipbreakers to move away from beaching to clean and safe methods which would also be acceptable in Europe or other ship-owning countries such as China or Japan.

EU Regulation on Ship Recycling: little impact?

Despite the international law in place, most end-of-life vessels still end up in substandard facilities, as the Platform's research has shown again with the publication of the list of "Global Dumpers" in February 2015. The EU has long recognized its responsibility to contribute to change. Former Environment Commissioner Stavros Dimas announced in April 2006 that the EU had an important role to play in finding solutions for responsible ship recycling. The European Commission (EC) published a promising Green Paper

and a Strategy and the European Parliament urged the Commission to act. In March 2012, the EC published a proposal for a new regulation on ship recycling. The regulation seeks to implement the Hong Kong Convention and to add several higher standards for EU-flagged vessels. Recycling facilities that intend to take in EU-flagged end-of-life vessels have to be listed by the EU as being compliant with the regulation. The regulation was finally adopted and entered into force in December 2013.

The regulation will only put obligations on EU-flagged end-of-life ships – only a small percentage of all EU-owned ships sold for demolition. Most European ships fly flags of convenience (FOC) during their last voyage. NGOs are afraid that the regulation will be a further motivation for ship owners to flag out to FOCs such as St Kitts Nevis or Tuvalu, which are very popular end-of-life flags offering cheap last voyages offers, in order not to fall under the scope of the regulation. Just as they have circumvented the export ban before, ship owners can easily avoid the new obligation to use listed facilities by flagging out to non-European flags.

Moreover, the Platform has criticised the regulation as it does not introduce any economic incentive to encourage ship owners to choose for responsible ship recycling. Without any financial mechanism, the regulation will have little impact. The Platform welcomed the decision by the European Parliament's rapporteur on the issue, Carl Schlyter, to introduce a ship recycling fund. Despite a clear majority in the Environment Committee, the Parliament voted down the fund in plenary after heavy lobbying both from the ship owners associations as well as the European ports. The Parliament asked the Commission to develop a financial model to internalise costs for clean and safe ship recycling, which means that there will be a further delay of several years to introduce such an economic incentive.

However, the new Ship Recycling Regulation is a clear signal to ship owners that beaching is not acceptable and that they will be held responsible for clean and safe ship recycling. The list of compliant ship recycling facilities, which the European Commission will publish later this year, will set a global standard for clean and safe ship recycling and will make it easier for ship owners to make a good choice. Ship owners' association now discuss the issue and more and more ship owners realise that they have to act. Also large cargo owners, major retailers from Europe, have discovered the issues and will demand safe and clean recycling from their forwarders. Moreover, the regulation will demand an Inventory of Hazardous Materials (IHM) on board of every ship calling at an EU port in the future. IHMs are the basic tool to allow for safe and clean ship recycling. So far the vast majority of end-of-life vessels do not have an inventory – the regulation will change this.

An economic incentive for real change

The NGOs have been promoting a mandatory economic incentive for clean and safe ship recycling for many years in order to internalize the costs for proper ship recycling and the management of hazardous wastes, to discourage the reflagging of end-of-life vessels to avoid European regulations and to implement an individual ship owner responsibility scheme which encourages the shipping industry to procure green ship design and pre-clean ships during operational use.

The Polluter-Pays Principle or cost internalization is at the core of environmental policies on waste management of the EU, the Organisation for Economic Cooperation and Development (OECD) and the United Nations Environment Programme (UNEP). Under a financial mechanism the costs of proper management of hazardous wastes will be borne by those profiting from ships during their lifecycle instead of externalizing them to vulnerable countries. Even if the EU needs to take further measures to prevent the out-flagging of European-owned ships, a financial mechanism for proper ship recycling covering all ships calling at EU ports will discourage re-flagging shortly before breaking. Several studies already published on the issue have shown that different models for such a mechanism are economically and legally feasible.

A clear message from the Environment Commissioner

The new EU Ship Recycling Regulation is not yet applicable, as the Commission needs to first publish a list of compliant facilities, which are able to at least recycle 2.5 million light displacement tons every year. It is expected to become applicable in 2016. Although the new regulation out-rules the use of the beaching method to dismantle EU-flagged vessels, 41 ships registered under the flags of EU Member states Malta, Italy, Cyprus, UK and Greece hit the beaches in 2014. 15 additional ships changed their flag from an EU to a non-EU flag just weeks before reaching South Asia. As in previous years, particular flags of convenience such as Saint Kitts and Nevis (64 ships), Comoros (39 ships), Tuvalu (24 ships), Tanzania (20 ships) and Togo (20 ships) that are less favoured during operational use, were excessively popular flags for the end-of-life ships broken in South Asia.

On 27 February 2015, the new Environment Commissioner of the EU, Karmenu Vella spoke to the Environment Committee in the European Parliament and said that the EU has "to stop the shameful practice of European ships being dismantled on beaches". We are optimistic that a smart mix of European and international regulation, an economic incentive, and voluntary commitments by the ship owners will allow us to reach this objective in the near future.



Note by the author

Patrizia Heidegger is the Executive Director of the NGO Shipbreaking Platform, a global coalition of 19 environmental, human and labour rights non-governmental organisations based in Brussels. The Platform seeks to prevent shipbreaking on tidal beaches, which is the root cause for dangerous working conditions and environmental pollution in the sector, and promotes clean and safe ship recycling.

Further information on campaigns, policy recommendations and studies:
www.shipbreakingplatform.org Contact: patrizia@shipbreakingplatform.org





You are never too old to learn!

BY JOHN KILHAMS

In this article, John Kilhams, (retired IIMS education co-ordinator), discusses the virtues of the BTEC HND and HNC qualifications in marine surveying, the only externally awarded qualification of its type in the world.

Do I need a qualification?

This is a question frequently asked. You can practice as a marine surveyor without a qualification as the profession is largely unregulated, but it is not in your best interest to do so. Insurance companies may well insist that you are qualified to carry out the work you undertake, even though you may have many years of experience in the field and have lots of practical experience. Without this, or a recognised qualification, it will be difficult if not impossible to get PI cover (professional indemnity). As a small craft member of the IIMS you are required to have this cover in place for every survey you undertake. This can be expensive but with the right qualifications or proven experience it can be available at a more reasonable cost.

If you are unfortunate enough to find yourself in a more serious situation in court defending your position, you may be able to say that you have worked in the industry for the last forty years and have a good working knowledge of the issues involved. However, it would help your situation greatly to be able to say that you have passed an HND with distinction in marine surveying!

It is important to understand what type of qualification you should take. There are a number of diplomas available, which may well give you an introduction to

the surveying industry, but these are offered by private companies and are not externally verified, so have limited recognition. You would be wise to be sure that any qualification you decide to study for has not only been produced by professionals in the industry, but has also been verified by an independent organisation to ensure a constant standard in the material produced.

You may have heard that there have been changes and developments to the IIMS diploma. Since 2012 the IIMS have been working to upgrade the diploma course and gain acceptance to the Edexcel HND and HNC programme. This has required considerable work with most of the course material needing to be re-written and upgraded. As the Institute's membership expanded it became necessary to offer a qualification which would be accepted worldwide, without exception. The Higher National Certificate and the Higher National Diploma are designed to meet this requirement.

With an organisation such as the IIMS, whose membership to a high percentage is not based in the United Kingdom, it was considered the best course of action. As the qualification is externally verified and is the only marine surveying course offered that can claim this, it is a high standard qualification

The IIMS HNC and HND course material was written and produced by the professional members of the Institute and is offered and administered by the Institute on a distance learning basis.

covering in great depth all aspects of marine surveying. Insurance companies will approve of this when trading within the industry. But more to the point it indicates to your client that you are qualified to undertake his work giving peace of mind. And it is what the client has been looking to have for some time - a way of establishing the suitability of a surveyor to carry out the work on his craft.

The IIMS HNC and HND course material was written and produced by the professional members of the Institute and is offered and administered by the Institute on a distance learning basis. It has however been approved and agreed by Pearson Edexcel, who are the awarding and certifying body. The marking of assignments is carried out by professionals but before it is passed to be marked it is assessed by the administrative staff at the office to ensure that it is original work and there is no plagiarism. Once returned from the marker it is sent to an internal verifier to ensure that the marking has been completed in a consistent way and has been graded correctly. We also have an on-site inspection and audit carried out by Edexcel to confirm that the course is being administered in the correct and fair manner. This is the external verification process that sets the HNC and HND above all other surveying qualifications offered in the industry.

The course level is much higher than the original diploma. It is set at the level of a first year

degree course, which means it is not easy to complete. Successful students will be able to operate within the industry with peace of mind knowing that they are well prepared for the task. The courses are all run on a distance learning basis, which means students are sent assignments at the rate of approximately one a month. These are put up on to a designated and personalised area of the website for students to download. They receive an email telling them that there is material waiting their attention. A student can then enter the password protected site and download the Unit ready for study. Students must read this carefully as it is basically a book on the subject they have chosen to study. One month after this they will be sent their assignment. This will be sent in the same way as the Unit. Students are required to complete this in their own time as long as they keep within the course guidelines. An assessment is carried out on the completed assignments and returned by email for marking. There is no final examination to sit.

All marking is completed by professionals in their particular field of the marine industry. Support is provided by individual tutors on request if required. However, students are encouraged to research the subjects to assist their understanding. Tutors will provide guidance and suggestions on how to go about doing that. Students are encouraged to make contact with their tutor in the first instance by email and he will guide from there.

The assignments are not just questions to which short answers are given. They are scenarios which need to be studied in detail. There may be a number of possible solutions and a student would be expected to identify these and fully explain the situation to the assessor in their assignment paper.

The assignments all carry detailed instructions and show the learning outcomes of each subject and the criteria which needs to be met in

the submission. It also carries the details of the grading system that is employed in the marking. This is an important aspect of the course and all candidates will need to understand this when completing submissions. The assessor works closely to these in his assessment of the paper. The objective here is to provide sufficient information to the assessor to show the student has a good and detailed knowledge of the subject being studied. This means that assignments are more like dissertations on the chosen subject.

There are over 30 units (study subjects) to choose from. The requirement for an HNC is four core units (that have to be studied) plus six specialist units. The HND is four core units and twelve specialist units. However, if a student does the HNC and then moves on to the HND, they can use their HNC as evidence of prior learning and then complete an HND by doing six further specialist units. You will see from this that it is possible to tailor the course to suit your preferred area of operation, ensuring you have selected units to reinforce your knowledge in the field in which you have chosen to practice.

All this may sound a little daunting! However, there is up to three years to complete the course to HND level. Students are graded on their assignment as a pass, merit or distinction. These marks are identified on the certificate showing a complete picture of the overall performance. If for some reason a student does not achieve a pass on one subject they can resubmit. But it is possible to choose to contact the Assessor for that subject. He will offer support and he will advise the student on the best way to improve their mark. Students get three opportunities to resubmit.

The good news is that there is no reason to spend time and money on travelling. The full course can be completed from a home location or, as we have found, at sea or when travelling. Course material can be

downloaded to a laptop (or similar such device) and then studied while away. The assignment can be uploaded for assessment on return to an internet location. Something that is vital to the success is that a good internet connection exists and good IT capabilities. Also it is worth noting that the course is conducted in English only and it is estimated the HNC will consume 600 study hours - the HND longer.

The course is approved and verified by Pearson Edexcel, incorporating the BTEC brand that has been around for 25 years. Edexcel's world-class academic and general qualifications include GCSE's, A levels and International GCSE's, as well as some vocational qualifications, including NVQ's and Functional Skills. Their qualifications combine a progressive approach with international content, allowing learners to achieve their full potential in today's global economy.

Who applies for the course? The IIMS has a broad range of students applying, mostly professional people, who have a bit of marine experience. They may have come from the Navy or other Armed Forces and want a change of career. The qualification also appeals to surveyors who are working in the industry and wish to change their area of specialism, or obtain a formal qualification. It is recommended that applicants should have a basic marine background knowledge and a good secondary school education with a reasonable grasp of mathematics and English language. The HNC and HND programme is not considered suitable for complete beginners unless they have something like an engineering qualification or similar.

So, if you are looking to improve your expertise, or gain a qualification to set you up in a new career in the marine surveying business, the IIMS HNC or HND is the most economic route to put you in the position to build up a recognised and respected surveying operation in whichever

field you choose. The cost of these courses is very reasonable with the HNC costing £3000 (three thousand pounds). If you do decide that you want to move on to the HND it will cost you a further £2000 (two thousand pounds).

All students on the course, who are not already IIMS members, gain student membership of the IIMS giving them the right to attend seminars and courses which are held throughout the year. Existing members of the IIMS can also claim a 10% discount on the above prices making them even more attractive. For students preferring to work from hard copy we also have these available at £650 (six hundred and fifty pounds) for the HNC and £1,040 (one thousand and forty pounds) for the HND, but there are no discounts available on these.

On completion of the HNC or HND you become a graduate member of the IIMS and your certificate will be sent to you from Edexcel. In addition you also receive an IIMS Diploma certificate. This will give a full description of the subjects studied. After twelve months you can apply to upgrade your membership and production of your certificate for this will help. If you are looking to make a name for yourself in the surveying market then the Marine Surveying HNC or HND is an excellent basis from which you can reinforce your position in the industry and can only enhance your surveying skills which in turn will lead to a successful business.

For further information and to read the Prospectus visit:

<http://iims.org.uk/education/btec-marine-surveying-hnc-hnd>

Course units can be purchased individually...

IIMS understand that not everyone has the time to make such a commitment to study to such depths. With that in mind, the HNC/ HND course units are available to purchase individually at £395. No need to do the assignment, although you can if you wish and have it marked. These are available as downloadable PDF documents from the IIMS web site. Go to: <http://iims.org.uk/education/buy-unit>





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! WATCHOUT

We take a look at a maritime accident report and the lessons that can be learned

Communications **breakdown!**

What happened?

A container ship collided with a bulk carrier in the early hours of the morning, causing serious damage to both vessels and a substantial spillage of heavy fuel oil into the water. The container ship had to alter course to pass between a group of fishing boats. This brought her into direct risk of collision with a bulk carrier ahead. The bulk carrier's officer of the watch communicated with the container ship via VHF radio to try and avoid a clash. He spoke in Mandarin to the container ship's Chinese second officer, who was on the bridge for familiarisation purposes. The second officer agreed to the request to have his vessel pass around the bulk carrier's stern.

The container ship's Filipino officer of the watch did not understand the exchange and therefore did not carry out the correct preventative manoeuvres. Further confusion over VHF radio communications resulted in both vessels altering course to starboard and colliding with each other.

Why did it happen?

Both the container ship's second officer and the bulk carrier's officer of the watch considered it appropriate to use VHF radio for collision avoidance, against standard industry best practice and advice. Language barriers worsened everyone's understanding, as the Chinese officer failed to fully translate the radio communications with the bulk carrier to his Filipino colleague. Furthermore, the officer of the watch showed a worrying lack of situational awareness.

The issues

- > Inappropriate use of VHF radio for collision avoidance
- > Failure to translate conversation held in Mandarin for the benefit of the Filipino OOW
- > Lack of situational awareness shown by container ship's officer of the watch

What changes have been made?

Both ship companies involved have taken steps to prevent a recurrence of this costly collision. All Masters have been reminded of the importance of engaging with and motivating crew in the safe and efficient management of their vessels.

Safety management systems have been reviewed and amended to make sure VHF radio is not used for collision avoidance.

**CONFUSION OVER VHF RADIO
COMMUNICATIONS RESULTED IN BOTH
VESSELS ALTERING COURSE ... AND
COLLIDING WITH EACH OTHER**



Happy talk: verbal communications and effective navigation

Our ability to communicate with each other defines our existence. Life would be very difficult if we could not communicate our thoughts to each other. Even falling in love would be hard! Communication with our fellow humans defines our relationships in life. It also defines our ability to perform our tasks and duties in the workplace. This article explains why the role of verbal communications during navigation is critical

Navigating a ship into a port and berthing it safely is a difficult task requiring the combined efforts of the entire bridge team.

A mistake on the part of any one individual could lead to an accident. In case of fog or bad weather, the risks get bigger. In some ports and in some fairways, or river passages, the ship may be operating with such small margins of safety that there is no room for communication errors.

Think about a passage of a VLCC in the Malacca Straits, or a passage in the St Lawrence Seaway, or the Mississippi. How many seconds would you have before grounding, if a wrong helm or incorrect

engine order is executed?

The entire team has to work together to safely navigate the vessel. Now, imagine the mix of nationalities on many ships today. The officers might be from one or two nationalities with ABs from another. The Pilot, tug crews and linesmen may come from different countries, as might the port control and VTS operator personnel.

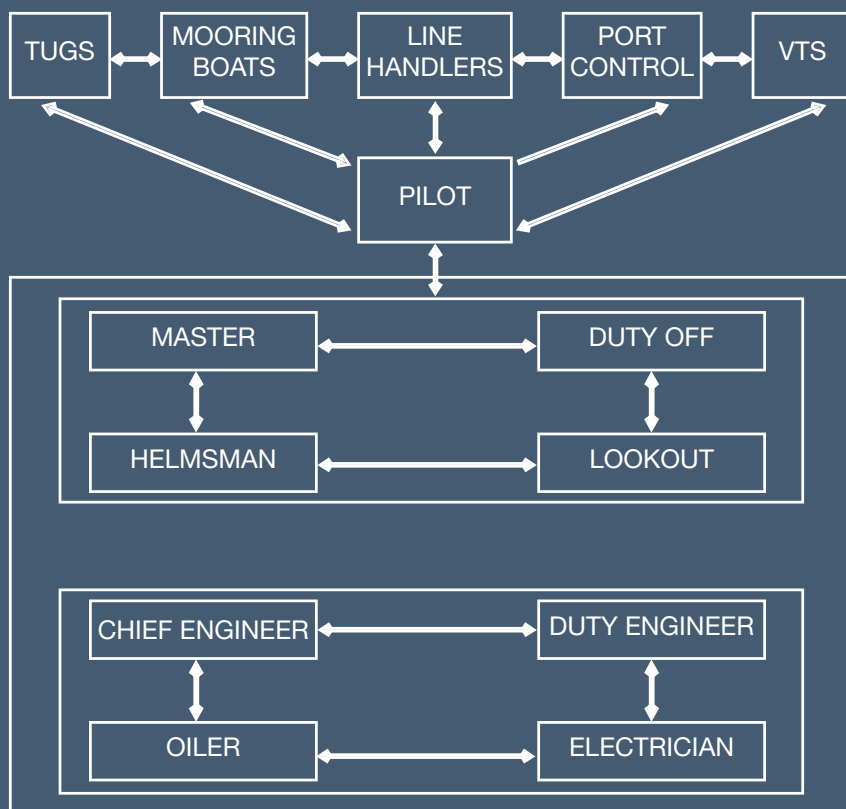
Each of these individuals may have different accents, even if they speak a common language. Yet it is generally agreed that good verbal communication between all these professionals is critical to the safety of the vessel.

Effective bridge communication

The purpose of communication is to convey your thoughts to another person, and to get them to carry out the actions you want them to take. It is important to encourage them to speak their mind too, so that you are sure that your message has been clearly understood. If the communication fails in getting the listener to carry out the desired action correctly, it could lead to an accident.

Considering the multi-national environment in the maritime world, it is essential that when you speak, you do so clearly and slowly. Use simple words and short sentences and ensure that you are loud enough to be heard above the general sound level in the surroundings.

English may not be the first, second or even the third language of your listener. The IMO Standard Maritime Communication Phrase (SMCP) is a good resource to use, since seafarers from all countries are familiar with it. Using the standard phrases is good practice even if English is your first language.



You do the maths

This diagram shows all the individuals and groups of individuals involved in bringing a ship into port - and the communications between them. It may not be easy to get statistics of the number of accidents that have happened due to poor communications between everyone involved. However, it is not hard to accept that accidents can and do happen if communication between all the people listed is not good enough.

If you're good at mathematics, you can work out the various permutations. You will probably find that, with all the players in the diagram, there could be more than a million chances of error, if communications are not handled properly.

It makes things clearer to the listener.

After speaking, wait to see if the words are understood by the listener. As a general rule, the policy onboard should require the listener to repeat what they have heard and for the speaker to then acknowledge that what the listener has just repeated was correct. This is generally referred to as 'Closed Loop Communication'.

The speaker's duty does not end once the listener has repeated the communication. To avoid accidents, the speaker must then observe and verify that the correct action has been carried out.

Communication subtleties

These rules of speaking and listening are taught in most colleges as part of their Bridge Team Management (BTM) or Bridge Resource Management (BRM) courses.

However, there are several other important aspects of communication not taught quite so often. For example, it's important to note your own tone and body language, as this can affect the listener's response to the communication.

An angry or irritable tone discourages the listener from sharing his or her thoughts in the future. If a junior officer is intimidated, he or she will be reluctant to convey their doubts about the navigational situation and thereby reduce the overall effectiveness of the bridge team. Imagine if, due to being afraid of angering a senior person, the junior officer fails to report that the ship is setting off towards the wrong side of the channel!

An encouraging tone helps give bridge team members the confidence to share their thoughts and concerns. A smile or convivial pat on the shoulder while talking to someone, or even a simple encouraging nod to acknowledge the contribution of a team member, can go a long way in establishing a stronger rapport and sense of team spirit on the bridge.

We often hear the words 'planning' and 'risk assessment' onboard ships. While I'm certainly not advocating carrying out a risk assessment every time you speak, it's nevertheless important to consider 'planning' your more important communications, especially if you are not very comfortable in

the language being spoken.

It's a good idea to prepare your questions and perhaps even keep notes ready, in order to ensure that you achieve the required goals through the conversation. If you are concerned about the clarity of your speech, or your accent, try to practise as often as you can. Watching movies in that language is also an effective learning tool. Thanks to shorter stays in ports, and difficulties arising from security concerns, it may no longer be possible to make friends ashore to practise your language skills on!

Stay alert

Navigating a ship requires constant alertness and vigilance, especially in congested or shallow waters and during port approaches and berthing. Verbal communications on the bridge should therefore be kept to the minimum required for navigating. It's easy to get distracted discussing the football game or the latest movie. Too many or too few communications become harmful to safe navigation; getting the balance right is key.

Interpreting data: a human-technology partnership

A large amount of data is now available to us all, both on a private and professional basis. Every day, we make decisions based on incomplete information, recognise patterns and act on other behaviours that a computer would and could not do. So, while computers are a good tool to help us find out what's going on in the world, using them in isolation is not the only way. This article looks at how to make sense of what computers are telling us and how to combine our human abilities and their technological strengths to develop effective, informed communications.



Data and information: what's the difference?

Data is 'raw', non-interpreted information. Information can, conversely, be described as 'interpreted data'. For data to become information, it must be meaningful to a human operator, in terms of both the task at hand and its overall context. For example, the computer message, 'error 468' is data, while 'error GPS 1 is off line' is information that a human user can understand and act upon. To achieve meaningful communications, it could be argued that we need to deal with information, not just data. Unless we understand the meaning of the message, there is little point in having communication (at least where humans are involved).

Information management - how to avoid overload

New technologies bring with them increased communication possibilities and better access to data. Today, the challenge is to make relevant data/information available at the right time. If there is 'too much' data, or if it is presented in an inappropriate way, extra time and effort will have to be spent on interpreting the data's basic content, rather than analysing its implications for the present situation and using it to inform future actions.

The right information therefore has to be available, but not in such large amounts that we become overloaded by it. If machines were smart enough to run without human interaction, they would know what information to present and when. Currently, humans remain better than machines at data interpretation, unless they drown in too much of it at once. You need to manage the amount of information available to you by focusing on the task at hand and knowing what you need to perform and when. It is all too easy to be sidetracked by too much information coming in all at once.

How much information do you need onboard?

Settings on bridge equipment should always be appropriate to the situation you are in. Lower ranges on the radar, for example, when closer to land or a large object, as well as choosing the band according to current weather conditions. Consider, too, who is on the bridge. Is it just you, or is there a whole team? Different people may need different sets of

information – the Pilot, Master, OOW etc. What might work for you may not be the ideal setting for others. Standardisation is often hailed as a solution, but it does not mean you will always have things your way.

The more notice you have before an action needs to be performed, the more information you can (potentially) have on your screen/s. Yet the closer you get (in distance or time), the more you need to unclutter your screen. You need to make sure you have both time to think and time to act. As people gain experience, they spend more time examining the situation at hand and less time considering multiple potential options. Novices, on the other hand, spend more time thinking about the options and less on comprehending the situation. As your experience grows, your "library" of situations and options will also expand, and you can recognise what to do quickly and more easily.

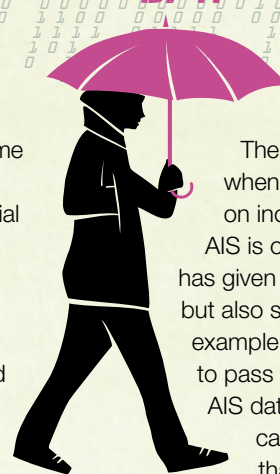
When you do not have enough time to think things through, you will have to make a trade-off, usually between thoroughness and efficiency. To save time, you may well have to take a shortcut or find a work-around. Be aware of this and plan well in advance, while you still have the time.

Trustworthiness and accuracy

A lot of information today is presented in a graphically appealing way, which may mislead us at first. We humans judge trustworthiness like this when we meet people, and also when we "meet" new information. If it "seems" and looks trustworthy, we consider that it probably is. However, this may not always be true. We must manage the available time and resources to try and find time to check the information out. Flaws in data and information may come from:

- > Origin – i.e. they exist within the system from the beginning
- > Installation or maintenance – for example, the systems are not correctly integrated
- > Operational error
- > External manipulation – this is more common than you might think.

THE RIGHT INFORMATION
HAS TO BE AVAILABLE,
BUT NOT IN SUCH LARGE
AMOUNTS THAT WE
BECOME OVERLOADED
BY IT



There will always be a risk when basing a decision on incomplete information.

AIS is one innovation that has given us many benefits, but also some new risks. If, for example, you make a decision to pass a ship based on the AIS data on the next port of call or the ship's speed, that data may be faulty due to programming or

incorrect incoming sensor data. It will therefore lead to what will look like a bad decision after the event. Always be wary, and double check your information any way you can.

Check, check and check again

There's a reason you were told as a maritime student to always use more than one source of information. There's a reason, too, that the COLREGS state you should check: "by sight and hearing, as well as by all available means appropriate in the prevailing circumstances and conditions..."

The hardware may have changed, but the basic principle remains the same. Technology is not always trustworthy on its own, and human judgment may sometimes be based on incomplete data. Using both technology and human instinct in combination will help strengthen the approach and ensure a safer operation.

Author: Margareta Lützhöft
Deputy Director, National Centre for Ports
and Shipping, Australia

*“Mighty ships upon the ocean
Suffer from severe corrosion
Even those that stay at dockside
Are rapidly becoming oxide”*

T. R. B. Watson (Canada)

AN INTRODUCTION TO RUST

- part one -

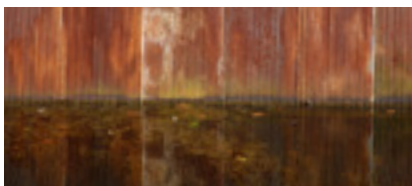


BY **Eur. Ing. JEFFREY
N. CASCIANI-WOOD**
HONFIIMS

Unlike other transition metals in its Mendelev Table group, iron (and its carbon compound – steel) corrodes readily in the presence of oxygen and water. The process is enhanced by the presence of ions such as sulphides and chlorides that are commonly found in marine environments.



A limited amount of phosphorus mildly improves the corrosion resistance and the presence of silicon also improves the oxidation resistance. The puddling process used in the manufacture of wrought iron introduces up to about 4% silicon into the material together with 1% to 2% phosphorus and sulphur. On the other hand, the Bessemer, Basic Oxygen, open hearth (Siemens-Martin) and electric arc furnaces used in the manufacture of steel burns off the excess carbon leaving only a small percentage and burns out the phosphorus, sulphur and silicon. The classification societies do not allow the use of Bessemer or Basic Oxygen steel in shipbuilding because of their embrittling high nitrogen content and the impossibility to control accurately either the final chemistry or the final grain size of the metal but both will often be found in use in unclassified vessels built on the near Continent because of their relative cheapness.



Rust is a mixture of various oxides of iron and is usually found in one of five quite different forms: -

- **Wüstite:** Iron (II) Anhydrous ferrous oxide ($\text{Fe}_{0.935}\text{O}$). It is, strictly, not rust but a mineral form of iron (II) oxide found with meteorites and native iron. It has a grey colour with a greenish tint in reflected light and also forms as a dry brown/red powdery mineral or on the surface of the metal and is only found in very arid conditions *i.e.* never in a marine environment.
- **Green Rust:** Iron(II) Hydrated ferrous oxide, $\text{FeO}(\text{OH})$. This, strictly, is also not rust but it has two forms respectively known as goethite from its fine powdery (earthy) nature (Greek ἡ γῆ = the earth) or lepidocrocite due to its fine scaly nature (Greek ἡ λεπίς = the scale). There is no chemical difference between goethite and lepidocrocite but the precipitate can vary in colour from green to reddish brown depending on the iron(III) content.
- **Brown (Red) Rust:** Iron(III) Hydrated ferric oxide, Fe_2O_3 with $\text{Fe}_2\text{O}_3 \cdot 2(\text{OH})$ otherwise known as haematite (Greek ἡ αἷμα = the blood) and this oxide, particularly when wet, is often found to be of a bright orange brown or red colour and it is generally found as a heavy flaky scale.
- **Black Rust:** Iron(III) Ferrosoferric oxide or mixed ferrous and ferric oxides, (Fe_3O_4 or FeO and Fe_2O_3) otherwise known as magnetite (Greek ἡ μαγνή = the magnet) and so-called from its magnetic nature. It has a lustrous black colour.

Magnetite in its form as an iron ore was known to the Anglo-Saxons as lodestone and was used by the Vikings and the ancient Chinese as a primitive form of magnetic compass. The marine surveyor should be able to recognise all of these various types of rust on sight.

In very dry, unpolluted atmospheres, a thin (0.4 mm thick) protective oxide film can form. This is anhydrous FeO or Wüstite. However, as the oxygen-iron phase diagram shows, its composition is non-stoichiometric (*i.e.*, there is not an equal number of Fe_2^+ and O_2^- ions). Its chemical formula is more accurately written as $\text{Fe}_{0.953}\text{O}$ with the charge balance made up of Fe_3^+ ions. The deficiency of iron in the oxide leads to a defective structure which means that the film is not fully protective although it is better than rust. Above a relative humidity threshold of about 60% (less in the presence of, for example hygroscopic dust) there is sufficient water around for some droplets to condense on the metal surface. These provide the electrolyte for electro-chemical corrosion to start. Relative humidities of 60% and above are often found in a steel vessel's ballast tanks usually in combination with a high ambient temperature and that is the reason why such spaces are subject to very heavy corrosion rates.

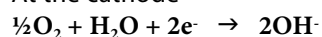


The electro-chemical process can be followed as:

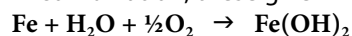
At the anode



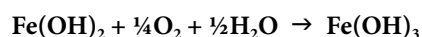
At the cathode



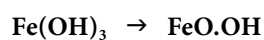
In combination, these give



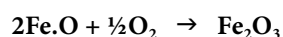
This latter form of brown powder is chemically ferrous hydroxide which further oxidizes to: -



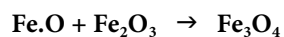
and which chemically ferric hydroxide which can rapidly change to hydrated ferrous oxide: -



plus water which can oxidize yet further to ferric oxide in accordance with the equation: -



and combine to give ferrosferric oxide thus: -



Finally then, rust, as the marine surveyor knows it, is a mixture of FeO(OH) , Fe_2O_3 and Fe_3O_4 or hydrated ferrous oxide, ferric oxide and ferrosferric oxide. Ferric hydroxide, on the other hand, Fe(OH)_3 is not rust but is a brown

powder insoluble in water. It is also known as ferric hydrate and iron hydroxide. Each of these oxides tends to be non-stoichiometric because of the close structural relationship between them. They are all based on a cubic, close packed array of oxygen ions, with iron as Fe_2^+ and Fe_3^+ occupying the tetrahedral and octahedral interstices. If all the octahedral sites are occupied by Fe_2^+ ions the ideal stoichiometric FeO is obtained. If 14.1% of these are replaced by Fe_3^+ this becomes $\text{Fe}_{0.953}\text{O}$. With 66.7% replacement by Fe_3^+ ions, half of which migrate to tetrahedral sites, this becomes Fe_3O_4 and 100% replacement gives Fe_2O_3 . Thus interconversion of the oxides is readily achieved merely by redistribution of ions between interstitial sites and with no major structural changes. Their lack of stoichiometry¹⁰ leads to defect structures that provide diffusion paths through their lattices. In Fe_2O_3 and Fe_3O_4 vacancy defects appear in the oxygen anion sublattice, so that oxygen ions can diffuse through the film toward the metal oxide interface. At the same time and also due to non-stoichiometry, electrons can diffuse in the other direction (all three oxides are semiconductors) thus completing the electro-chemical circuit. The net result is that further oxidation takes place at the interface between the metal and the oxide. At first sight the reaction should slow down as the oxide

layer thickens and the diffusion paths lengthen. However, there is an approximate doubling in volume accompanying the reaction and it is that expansion against the existing iron oxide layer that leads to spalling thus exposing fresh metal to further direct attack. Nevertheless it is the relative diffusion rate that determines whether or not an oxide will spall not the volume change.

THE RUST TRIANGLE

For true rust (hydrated ferrous oxide, hydrated ferric oxide or ferrosferric oxide) to form there has to be three components present, iron (the element), moisture usually water and oxygen (from the air). The water does not have to be salt and rust can form on wrought iron or steel in the presence of very pure drinkable water. The three components are often shown in the form of a triangle as in Figure 1 on the following page. The presence of chromium or nickel as a compound in the metal can inhibit (not prevent) the iron from oxidising or rusting hence the use of so called stainless steels. The presence of other elements such as carbon has no effect. Thus iron will rust just as easily as steel which is basically a carbon compound of iron. There is no truth in the belief common among Dutch barge Owners that wrought iron does not rust. It does!



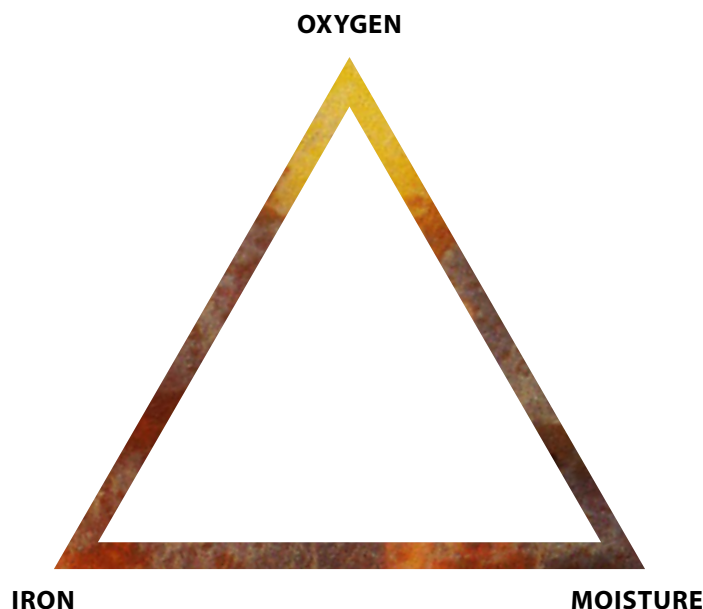


Figure 1 The Rust Triangle

One rust treatment that should be considered are substances sold as Vactan or Fertan which are water based solutions with the consistency of thick, cold tea. They chemically convert the rust into an inert layer of insoluble ferric tannate ($\text{Fe}_2(\text{C}_{14}\text{H}_7\text{O}_9)(\text{OH})_3$) which can be left uncoated for up to six months before painting. They also remove loose rust and are easy to apply by either a brush or a roller. Both are harmless if any runs into the water. Neither attacks good metal, only the rust, leaving a neutral surface which, once rinsed to remove any remaining rust dust, is ready for painting. They can also form an excellent base coat before many conventional paint treatment systems but should not be used with high performance epoxy substances. The materials are non-flammable, non-volatile and harmless to health either by either physical contact or fume inhalation and, further, provide a long term protection to both wrought iron and mild steel.



CORROSION SCALES

Reference Document:

ISO 8501/1: Rust grades and preparation grades of uncoated steel substrates after removal of previous coatings.

The marine surveyor may come across the above documented scale designating the severity of the surface corrosion on uncoated steel plate as:

- A** covered completely with adherent mill scale and little if any rust.
- B** has begun to rust and the mill scale has begun to flake.
- C** mill scale has rusted away or can be scraped off with little or no pitting visible to the naked eye.
- D** mill scale has rusted away with considerable pitting visible to the naked eye.

The scale, however, is not realistic for the marine surveyor looking at a vessel several years old. These days, plates or sections coming new from the rolling mills will nearly always be shot blasted and primed before they leave the mill and will, therefore, have no mill scale at all. An unprimed plate



that has been worked, - sheared, punched, rolled *etc.*, - will have had by far the majority of any original mill scale still left after weathering removed by the working processes before it is built into the ship. The likelihood of the marine surveyor coming across any mill scale except, perhaps, in a shipyard's stockyard where the steel will be being weathered to remove any such mill scale is, therefore, very small indeed. Plates or sections with mill scale are rarely built into a vessel and then only by incompetent building yards and it is only in such a stockyard that the marine surveyor is likely to see conditions A, B and C. Condition D is, to say the least of it, also highly unlikely as pitting on a shell plate only becomes visible to the naked eye after some years in service when any original mill scale left would long have disappeared.

A scale in common used among marine coating specialists is the European Rust Scale, a copy of which can be downloaded from the web and that gives a set of comparative photographs to enable an inspector to judge how rusty and corroded a piece of steelwork is against a recognised standard.

Another (American) scale from the vehicle industry which appears to cover the stages from no corrosion to the advanced haematite stage and which has been adapted for use on marine structures is as follows: -

Generally, corrosion problems are measured or rated at five stages on a scale of 0 to 4.

A. MILD STEEL

Stage 0

The painted surface shows no sign of cracking or paint bubbles. There is no pitting, no etching and the surface shows no rust stain or trace of rust and the surface coating is not compromised. No corrective measures are required but the surface must be maintained in a clean condition, free of salt and other contaminating agents such as dirt, grease, solvent and contaminated water *etc.*

Stage 1

The painted surface is bubbly or the paint bubbles have broken to reveal rusty red, black or white corrosion deposits on the metal surface which may be accompanied by minor etching or pitting of the metal. No scale will be present but the metal may have loose, powdery or small granular deposits on the surface. The base metal is sound with no direct visual evidence of pitting but the surface coating has been compromised. The condition does not require immediate corrective action but the surface should be cleaned and a corrosion control coating should be applied to prevent the condition deteriorating.

Stage 2

A powered granular (geothite) or scaled (lepidocrocite) condition exists on the surface metal and rusty red, black or white corrosion deposits are present. The metal surface may be etched or pitted but beneath the corroded area the metal is still relatively sound. The surface should be cleaned by any applicable process and a corrosion control coating applied and the paint touched up as necessary. For a structure where a critical thickness is essential, a suitable corrosion control coating is a necessity.



Stage 3

The surface conditions and corrosion deposits present are similar to Stage 2 except that the rust flakes (light haematite) have started to develop and increase in thickness and the underlying metal in the corroded area is unsound and small pin holes may be present. Rust scales accompanied singularly or in combination with etching, pitting or more extensive surface damage is clearly visible. Corrective action is required immediately. Clean the surface by any applicable process including chipping off the rust scales and repair the damaged surface. A suitable corrosion control coating to cover the entire surface should be applied and the area recoated. At this stage the function or fitness of the equipment will be affected and immediate corrective action is required. All rust must be removed, the surface cleaned properly and where critical thickness is essential the application of a suitable corrosion control coating is a necessity.

Stage 4

Thick haematite scales cover the area and corrosion has advanced to the point where the metal has been penetrated throughout and no metal remains at the point of the most severe corrosion. There are holes in the surface area or metal may be completely missing along the edges of the plate or section. Areas of black, shiny magnetite may be visible under the scales. Corrective action is required immediately. The whole surface should be cleaned of rust by any applicable process and the damaged steel repaired by cropping and renewal. Doubling is not recommended. A suitable corrosion control coating should be applied to cover the entire surface and then recoated with paint. At this stage the function or fitness of the steel will be compromised and/or greatly affected and where critical thickness is essential the application of a suitable corrosion control coating is a necessity.

Stage 0



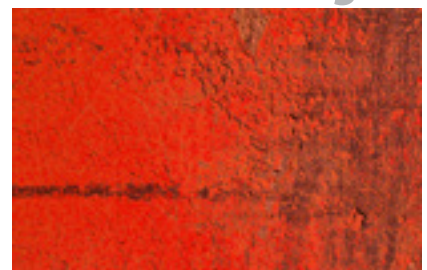
Stage 1



Stage 2



Stage 3



Stage 4



B. STAINLESS STEEL

This metal will nearly always be used in the propeller shaft.



Stage 0

The stainless steel is in good condition, no pits and the protective Cr film is intact. Preservation and passivation is required to maintain the protective Cr film.

Stage 1

The stainless steel has shown sign of early stage of pitting corrosion and the protective Cr film has been compromised. Flash rust stain is also easily seen but the metal is sound.

Stage 2

The stainless steel has advanced to Stage 2 of corrosion and small pits are developed on more than 60% of the surface and flash rust stains are easily seen but the metal is still sound. The protective Cr film is compromised and flaking is visible but spreading.

Stage 3

The stainless steel has suffered a severe pitting corrosion problem and the protective Cr film has nearly disappeared. Because the pits are close together, a uniform corrosion will likely develop and shaft's diameter is severely reduced by up to 30%. Depending on the purpose of the stainless steel, the strength of the material may have reached a critical stage where further investigation is required.

Stage 4

The stainless steel has suffered severe pitting corrosion problem. Although the general surface area appears to be better than in Stage 4, the severe side pitting corrosion problems are hidden beneath the surface.

Both American scales have to be used with care as both have limited applicability and, if the marine surveyor does write either of the scale stages into his report, he should also give a clear definition of the stages he has used as an appendix to the document.

Pitting is due to galvanic or electrolytic action and requires generally about ten years in service in the presence of sea water before it becomes significant. The usual progress of rusting on uncoated and mill scale free steel is goethite, lepidocrocite (perhaps), haematite and, in a few limited and special areas such as the bottom of the collision bulkhead inside a fore peak tank, magnetite. Pitting *per se* is very rare inside the vessel and is usually confined to the external wind and water areas of the shell plating as it requires contact with oxygen and sea water as an electrolyte to start and develop. Galvanic pitting is not at all likely on wrought iron plates but will appear on steel due to the difference in microstructure. Electrolytic or microbially induced pitting given the right conditions may be found on both iron and steel.

The **condition of steel** should be assessed on the following scale:

Good condition means no buckling, cracking or other physical defects, minor corrosion, wastage or scaling only.

Satisfactory or Fair condition means minor physical defects such as buckling or cracking, some corrosion, wastage or scaling but not at critical points.

Unsatisfactory condition means some physical defects, broken welds, torn or buckled structure, moderate corrosion or scaling and will require minor repairs or renovation and will also require to be reasonably frequently monitored.

Poor or Bad condition means critical physical defects, heavy corrosion, wastage or scaling and will require replacement or renewal within a time specified by the marine surveyor.

The **condition of protective paint coatings** should be assessed within the following categories: -

Good condition means only minor spot breakdowns or light rusting affecting less than 20% of the area under consideration. (ISO RI3; European Rust Scale RE3).

Fair condition means with local breakdown at the edge of stiffeners or weld connections or similar places affecting more than 20% but less than 60% of the area under consideration. (ISO RI4; European Rust Scale RE5).

Poor condition means general breakdown of the coating affecting more than 60% of the area or, in the case of steel boats, with hard scale affecting more than 10% of the area under consideration. (ISO RI5; European Rust Scale RE7).

See next edition for part two...

Part 2 on 'An Introduction To Rust' focuses on corrosion, including:

Galvanic and/or Electrolytic Corrosion (Pitting), Crevice Corrosion, Jacking Corrosion, Poulitice Corrosion and Stress Corrosion Cracking

Join over 5,000 international visitors at Ocean Business 2015.

Ocean Business 2015 will take place from 14 – 16 April 2015 at the National Oceanography Centre in Southampton, UK. Taking place every two years, Ocean Business is widely recognised as one of the most important events in the ocean technology calendar - and this year will see its biggest show yet. The exhibition and demos are FREE to attend and is expected to attract more than 5,000 visitors from over 50 countries.



Climb aboard and find out more...

In addition to the training and demonstration sessions, a number of vessels will also be alongside to demonstrate the latest technologies. These include: Briggs Marine bringing Solent Guardian, their 18m vessel; Sonardyne bringing their 12m Echo Explorer, and Osiris Projects and Bibby, bringing the Bibby Athena 27.5m purpose built semi-swath coastal survey vessel. Kongsberg Maritime will be bringing their GeoMotion 16.7m survey vessel, EdgeTech the New Life II vessel, Cheetah bring the Cheetah II and Teledyne Reson the EMU Surveyor vessel.

Hear the very latest in the global field of offshore surveying...

Ocean Business also offers Offshore Survey, a technical conference which runs over two days and promises to provide a valuable insight into the technology, operations and business issues in the global field of offshore surveying. 2015 will see the fifth Offshore Survey and will introduce a technical committee made up of outstanding personalities from industry and academia, led by Conference Chairman Ed Danson. The conference, organised with



Meet face to face with exhibitors from across the globe...

At the very heart of Ocean Business is an exhibition of over 300 companies, bringing together the world's leading manufacturers and service providers in the industry. The purpose built exhibition centre is located directly on the waterfront at the National Oceanography Centre in Southampton, UK and provides the visitor with the opportunity to see companies displaying the very latest in the industry all under one roof. For a full list of exhibitors, please visit www.oceanbusiness.com/exhibition

Get your hands on the latest technology and services...

Ocean Business is unique, not only can visitors meet face to face with exhibitors from around the world, they also have the rare opportunity to attend over 180 hours of training and demonstration sessions and see the latest products and services in action all FREE of charge. See these products and services demonstrated in their real environment. Eleven parallel sessions will be held across the three days, with sessions on board vessels, in dockside waters, in a test tank and in classrooms.

The show's Event Director, Versha Carter, comments, "We have followed the same winning formula as previous events with a three-day programme of hands-on training and demonstration workshops. This format really works as buyers can actually test drive equipment before purchasing"



the support of The Hydrographic Society, strives to present a programme reflecting the latest technological developments and practical experiences.

Hear from industry experts at various associated events...

Ocean Business has become a focal point for the industry with many organisations looking to hold associated meetings alongside. The opening day will see seminars from the Federation of Surveyors (FIG) and International Hydrographic Organisation (IHO), The Institute of Marine Engineering, Science & Technology (IMarEST) and the National Oceanography Centre (NOC). There will be workshops and seminars by the NOC, The UK Marine Industries Alliance and the Canadian High Commission along with The Hydrographic Society UK AGM on Wednesday and further NOC workshops on Thursday.

Discover a wealth of opportunities at Ocean Careers...

Running alongside Ocean Business is Ocean Careers, offering advice and career opportunities within the ocean technology, marine science and offshore industries. Incorporating a mix of one-to-one meetings and presentations from industry leaders, Ocean Careers is an interactive event designed for all those looking to move into the industry. It is clearly becoming harder for many graduates, newly qualified engineers and the unemployed to find work. Whether your skills are in engineering, science or mathematics, Ocean Careers can help you realise how these skills can be utilised in this vast, exciting, forward thinking and extremely diverse industry.

Network and socialise with industry colleagues...

Ocean Business is well known for organising some very special social events, and 2015 will be no exception. The social programme will offer plenty of enjoyable events for informal networking, from welcome drinks to a wine trail and the highlight of the week - a gala dinner to be held at Southampton's Guildhall on 15th April. Gala dinner tickets are now on sale and as the social event is always a sell-out, early booking is recommended.

Register for FREE

The Ocean Business 2015 exhibition, demos and welcome drinks are FREE to attend by registering online at:

www.oceanbusiness.com/register.

There is a fee to attend the conference and gala dinner. Visitors are encouraged to register online in advance to beat the queues onsite.

Follow Ocean Business on twitter @OceanBusiness #oceanbiz or join our LinkedIn group Ocean Business.

For more information on Ocean Business 2015, please visit www.oceanbusiness.com, email info@oceanbusiness.com or call +44(0)1453 836363.





FIFTY SHADES OF INSURANCE: CHAPTER FOUR

In the fourth article in this series, Karen Brain of Matrix Insurance Services Ltd., writes...

NOW YOU'VE DISCOVERED YOUR NEEDS – WHAT NEXT!

Well we said we would continue and so we are ...

Control your risks

It is difficult to stop people commencing litigation which is an unfortunate fact of everyday life. So often casually started without a thought for the consequences, time, money and stress. So what can we do about it?

Here are a few tips...

You have your professional indemnity insurance cover in place, you have applied your terms and conditions of business and you are on to doing the job you are to be paid for. The risks to you now arise from the work and advice you are to provide to your client.

So as with all stories we start at the beginning. It starts with you knowing what you are expected to be doing for your client. What is your job? Good question as it depends predominantly on your client's remit: a valuation, condition survey or cargo survey perhaps. Did you get your instructions in writing? Or at least confirm in writing what you have been asked to do and why? Or better both! Should you be giving your client or prospective client some guidance at this stage as to what you should

be doing for them? Do you need to ask some more questions such as their intended use of the vessel?

Your obligations to your client and their expectations are intrinsically linked with understanding and correctly complying with your remit; one "flows" from the other and this is the starting point of the structure and content of the report you compile and you should always keep this in mind when providing your advice.

A mistake which can arise is that when instructed to provide only a valuation survey, comments are included in the report relating more appropriately to a condition survey. This may change the report from solely a valuation report to one including a condition report from which liabilities may arise if there is reliance on the comment(s) provided which results in financial loss for a client.

Do you need to temper the expectations of a client, for example, by referring to subjectivities in a report such as the fact that the location of a vessel may affect its sale price?

We would like to know, what is a "walk-through-survey"? We have seen these instructions to surveyors, but surely all surveys and most survey jobs require walking through or around a vessel? Answers on a postcard please... But it seems from our experience that however casual

it may sound a "walk-through-survey" is anything but casual. Many a claim has arisen from such a survey because the report does not make it clear what has been undertaken, i.e. lesser time than was required to undertake a proper and full condition survey. The "walk through" survey seems to arise most of the time from the desire of a client to control expenditure and you have to ask yourself whether this is work you wish to undertake, or rather are you happy with the risks!

Understand your remit. Make it clear in your report what you were instructed to do and any consequences of those instructions. Make clear your findings providing a priority on actions that need to be undertaken so that an unseaworthy vessel is not used until seaworthy and vessels are not used for what you did not expect them to be used for, such as sailing half way around the world.

Finally in this chapter a real don't - don't sign off unseen work or do favours for any person however much you may trust them - the apparently nicest clients can also be the cutest when it comes to litigation.

To be continued...

Contact: **Karen Brain**
Matrix Insurance Services Ltd
Tel: 01892 724060
enquiries@matrix-ins.co.uk



NEW...Enclosed space training aimed specifically at Marine Surveyors..

WHY HAVE MINES RESCUE MARINE CREATED THIS COURSE?

IIMS are committed to the safety of their people, therefore, this course was created to help marine surveyors become aware of the potential dangers associated with entering and exiting enclosed spaces on board ships whilst carrying out their routine work.



COURSE CONTENT...

This bespoke one day course is drafted inline with the requirements of the UK national occupational standard for entering an enclosed medium risk area (tank, double bottoms, cargo holds, void spaces etc.) and can be assessed to that standard. Included in the course will be a review of main procedural documentation such as risk assessments, action plan (SSOW), permit to work and emergency procedures.



It also identifies Personal Protective Equipment and offers a 'hands on' learning approach in relation to monitoring equipment, EEBD's and other entry & rescue equipment.

The course also discusses the involvement of personnel positioned outside the enclosed space who have designated responsibilities for controlling the entry and dealing with an emergency situation should that occur.

In line with the national occupational standard identified above, there is a practical element to the course which may involve self rescue techniques to be demonstrated from both vertical and horizontal entry points.



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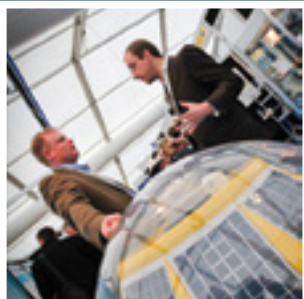


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15

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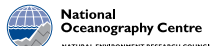
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