The Report

The Journal of The International Institute of Marine Surveying

December - 2010

Indian branch opens with a bang

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Foreword

With this, another bumper issue of the Report, we see again the huge diversity and cross section of the marine industry that IIMS members represent and the high calibre of articles.

The Global coverage of the institute is represented by the international flavour of the articles in this issue. From the Presidents Address starting in Mumbai; to ballast water management issues and non-indigenous species in the Canadian Great Lakes; to the Indian Ocean and South China Sea and the huge concerns about modern day piracy; to the new North American Environmental Control Areas for NOx and SOx (MARPOL Annex VI); to Scotland for the Small Craft Working Group Seminar; to Malta and the new policies for Merchant Shipping and Ports approved surveyors of ships; to Singapore and the first South East Asia IIMS Conference; to Indonesia and the AGM of the Association of Independent Surveyors of Indonesian (AISI); to Harwich and the building of a new 'Mayflower'; to the New Zealand Branch and their work with NZ Maritime Safety Authority; and back to the Europe and a very odd design of 'sinking' yacht by a French artist. You could never say that our lives are boring.

To pick one topic that seems to get little or no column inches in our broadsheets and is escalating at a profound rate, I would like to address the issue of piracy in the Indian Ocean and the Horn of Africa and its huge concern to all mariners and ship owners operating in these areas. The extent of the Somali pirates reach is stretching further east every day. Operation Ocean Shield and Atalanta are the EU and NATO operations in the Indian Ocean along with Coalition Maritime Forces, but there are not enough naval assets deployed to stop attacks. With all countries carrying out strategic defence reviews (reductions) and de-commissioning perfectly serviceable aircraft carriers and their aircraft before they have a viable replacement (5 year gap), it would seem likely that piratical attacks will increase. The Shipping Lane at 65 Degrees East as a North – South transit corridor through the Indian Ocean has now become within reach of the Somali Pirates and even beyond that. A vessel was recently taken at 71 Degrees East, only 200 miles off the Indian Coast. This may all seem distant for many members but consider the impact on Marine Insurance Surveys, On and Off hire, condition surveys etc for vessels that are employed in this trade area. Then there are cargo surveys and considerations of valuation and perishability of cargos on vessel that are held by the pirates. These as well as the human element of the crew safety all require input from the Marine Surveyor to provide expert knowledge and advice to third parties for the payment of ransoms to facilitate safe release. Finally, it is likely that some form of salvage survey will be needed post- release as many of the captured vessels have had their Bridge equipment shot up and made inoperable, as well as the need to assess the continued safe operation of main and auxiliary machinery and hull integrity. Training of surveyors, their credibility and clear, concise report writing are critical in all areas of the marine surveying industry but no more so in the case of advising an insurer on the safe release of a ship and its crew. Please spare a thought for those seafarers (over 400) who remain held by the Somali Pirates over this Festive Period.

The IIMS and this Report highlight the need for qualified, competent, professionals to engage in a multi-disciplined, multi-national, multi-faceted industry and we are stronger for the continued efforts of this Institute, its Elected Board, its Staff and its Members. May we all continue to prosper in 2011.

Peter Broad, CEng CMarEng, FIIMS, FIMarEST

Application for Membership:

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President's Address

This has been a very hectic and interesting period for me– mostly attending International Conferences.

Firstly Mumbai, where we set up a new IIMS branch, our third formal branch. The event can only be described as a superb show organised by our regional director Capt. Satish Anand and his excellent committee. Some 90+ delegates and some very important dignitaries attended – The Director General of Shipping, and the Chairman of the Indian Shipping Register to name a few. The whole event was televised and a major marine magazine featured some 30+ pages on the IIMS and conference. This certainly placed the IIMS in "Full Frontal Exposure"! Well done the India team.

Singapore followed albeit not as well attended as we would have liked, however, the interaction, content and presentations were excellent.

Following Singapore we flew to Indonesia where a joint meeting was organised in Jakarta with our affiliated organisation the Association of Indonesian Ship Surveyors. Again organised by our regional director Capt. Irawan Alwi. Some 90+ delegates attended and our CEO John Lawrence and our regional director for Australia Capt. Peter Lambert ably assisted me. A tutorial with some 25 students followed the meeting in the afternoon. During the event Capt. Alwi had some of his staff dress in regional traditional costumes and they certainly looked tremendous. During the lunch break we were given the most delightful and enchanting display of traditional Balinese cultural dancing by three little girls (6 and 8 year olds). It was absolutely captivating and they were true professionals. The picture and beaming smiles on their faces on the promise of a box of chocolates from the Institute to each of them for their performance was joy to be beholden.

Long haul travelling is arduous, however ,this made the long trip all the more worthwhile.

Next trip is the Superyacht Coatings Conference in Estoril Portugal where the IIMS is supporting this important event.

Now some great and very important news. The IIMS launches in January our "Registered Marine Surveyor and Registered Marine Consultant", registry. See the full article on Pg27 which outlines another industry first for the IIMS.

Finally we embark on that wonderful time of the year Christmas. I think this year we might even in the UK see a White Christmas – Snow! Turkey, Mince Pies and mulled wine are on the menu gathering to celebrate with friends and family.

May I take this opportunity to send you my sincerest best wishes to you and your families. I trust that the coming year brings everything you could wish for – HEALTH, PEACE, HAPPINESS & PROSPERITY.

Merry Christmas and a Happy New Year to you all.

Peter M

Ballast water requirements need clarity

Article Courtesy of Marine Propulsion Magazine Nov 2010

It is clear that present proposals for ballast water treatment are all aimed at solving a problem which has not been properly identified, says Columbia Shipmanagement's technical manager, Eddie Bucknall*

Is there anyone who understands what we need to do in the marine industry to control non-indigenous invasive species? If there are any new species out there that we are going to transport, they have yet to be identified. Is there a machine that can totally control all these species? Worse still, there are no tests which can guarantee that such a machine would work.

This year the US Government commissioned its Environment Protection Agency to undertake research into invasive non-indigenous species. The project started in March 2010 and will end in July 2011. The results of this study will need to be discussed and conclusions drawn up, and only then can action be taken.

Species migrate naturally, and this is not always a bad thing. In the 1970s Lake Erie (one of the US/Canadian Great Lakes) was a stagnant pond and Lake St Clear was moving the same way. In the 1980s zebra mussels were detected in the lakes — which is amazing considering there was hardly any trade between the Black Sea and the US, given this was the height of the Cold War — and today, thanks to the zebra mussel, the waters are clean, and the wildlife is back. How do we know that El Nino will not turn around again and send species to the Chilean or Panamanian coasts? Are we going to blame ships for that?

We have equipment approvals but they have not gained universal acceptance. Where does that leave the shipowner? When it comes to testing, we neither know how to test or who can test. If a ship sails to a third world country, how on earth will officials there test its ballast water? Holding a glass of water up and judging by its colour is not good enough.
As ship operators, we must be fearful that we will be at the mercy of Port State Control on this issue. There are already stories circulating of cash being paid over the table in exchange for ballast water discharge and no questions asked'. Another interesting view is that shipowners need not worry if plant does not work — it is the supplier's problem'. I cannot believe that is true. If Port State Control comes on board and a machine indicates that there are bugs on board, the owner will be fined and the ship detained. The vendor may have gone out of business by then.

When it comes to enforcement, where are all the laboratories we will need in each and every port to test this water? To my knowledge there are three laboratories in the US that can actually do the testing and give you a definitive result. Of course, for sewage almost every seaside town in the world has the ability to test but it takes four days to grow the cultures. We cannot afford to wait up to four days each and every time we come into port.

Another contentious issue is waivers. How is it acceptable for warships and submarines to be exempted from the convention? Do they not exchange ballast?

There is only one, 100 per cent solution for effective ballast water treatment. This entails operators cleaning their ballast tanks and taking fresh, treated water from ashore, since on many ships there is little room for plant, plus a very small crew and no testing facilities. This solution is tried and tested: before segregated ballast tanks, oil tankers would discharge ashore. What is more, this could be a nice green option for tankers. A tanker loading off the US could have water piped to it from ashore. For example, there is plenty of treated water in the Mississippi, which is perfectly good for irrigation. These ships would sail back to the Persian Gulf, and I am sure that Saudi Arabia would love Mississippi water with a fertiliser in it to irrigate its crops.

When the IMO Ballast Water Convention is ratified, industry will be faced with a US$35 billion bill. Industry owes it to itself and the environment — in whose name we are carrying out this undertaking — to get it absolutely right.

*This article is an edited version of a paper entitled, 'Understanding Ballast Water Treatment', presented by Eddie Bucknall at Riviera Maritime Media's Ballast Water Treatment Technology Conference, held during September in London.

No Light?

No Problem With Thermal Night-Vision Cameras

Article Courtesy of Yachting Life

T-Series night-vision cameras are the first thermal imaging systems to be fully integrated with a multi fu navigation display.

Marine electronics specialists Raymarine previewed its new T-Series thermal night-vision cameras at this Autumn's boat shows. Engineered with FLIR thermal imaging technology, the T-Series thermal night-vision cameras make navigation safer with clear video that helps boaters see hazards like buoys, floating debris, rocks, land, bridges, and other vessels, in total darkness.

Thermal night-vision cameras can also help find a person in the water faster than any other night-vision technology, claims Raymarine.

Designed for simple operation, the T-Series night-vision cameras are the first thermal imaging systems to be fully integrated with a multifunction navigation display.

ESeries Widescreen users can directly control a T-Series thermal night-vision camera using the HybridTouch interface to pan, tilt and zoom the camera. G-Series navigation system owners are able to control a T-Series camera using the system's keyboard and track pad.

This seamless integration gives boaters easy access to thermal imagery alongside their chartplotter, fishfinder, and radar navigation displays. There is also an optional remote joystick control unit, either as an addition to larger systems or for direct camera control when used with other Raymarine displays that have a composite video input. T-Series thermal night-vision cameras have compact, rugged, marine grade enclosures, and provide 360° pan and 90° tilt capability for complete coverage. T-Series cameras can be mounted conventionally in base-down camera-upright mode or suspended in a base-up camera-down configuration, dependent on vessel layout and construction.

Best of all, the T-Series camera controls are available at any E-Series Widescreen or G-Series display on the boat, giving skippers the ability to navigate with thermal imagery from the main helm, or via a remote navigation station. The T300 is a single thermal imaging sensor with x2 zoom, 320x240 QVGA video resolution; the high resolution T350 is a single thermal imaging sensor with both x2 and x4 zoom, and 640x480 VGA video resolution.

The T400 features both a thermal imaging sensor plus a high performance lowlight video camera and has x2 zoom, 320x240 QVGA video resolution; the high resolution T450 carries a thermal imaging sensor plus high performance lowlight video camera and has both x2 and x4 zoom, and 640x480 VGA video resolution. Indicative pricing ranges from £6,495 ex tax to £13,495 ex tax.

Raymarine's E Series Widescreen has received wide acclaim since its launch and it is about to receive an interesting upgrade, with the added seamless integration of thermal imaging control built-in as standard. Existing E Series Widescreen owners will also be able to download this function via a system update. Raymarine's HybridTouch technology gives users the flexibility of touch screen control alongside the use of the UniControl which integrates cursor and OK key in one rotary wheel plus the traditional hard buttons; a seamless mix of both methods.

A completely new interface means users can easily personalise their home screen, setting up the E Series Widescreen to their specific requirements. A built-in tutorial guides users through the many new functions and features available.

The E Series Widescreen comes with embedded Navionics ready to navigate cartography, and is compatible with Navionics charts including Gold, Platinum, and Platinum Plus with Turbo View and comes in three sizes – the E90W, E120W and E140W. The touch screen features enable fast chart panning, instant access to chart and navigation data simply by tapping the screen. A full qwerty' on-screen keyboard is used to edit and name routes and waypoints.

With visibility and clarity in all conditions key criteria for all users, the E Series Widescreen has a brilliant sunlight viewable colour display. It uses optically bonded LCD display technology to improve the contrast, and provide maximum readability.

Up to five E Series Widescreens can be networked together via SeaTalk or connecting up to eight SeaTalk nodes (MFD or sensor) on a single network using the SeaTalk network switch. The E Series Widescreen retails from £2,395 ex VAT.

More attacks feared as weather clears

Article Courtesy of Tanker Shipping & Trade

Pirates are venturing deeper into the Indian Ocean and South China Sea prompting insurance interests to consider underwriting a private fleet of armed patrol boats

Tanker owners should be braced for a resurgence in piracy hijacking attempts in the Indian Ocean and an outbreak of fresh attacks through the Far East.

Ship hijacking has risen this year as Somali pirates have extended their area of attack further away from the East African coast, using motherships as bases for their criminal activity.

Hijackings in the Gulf of Aden have fallen as more suspected pirates are caught

Hijackings are at a five year high, with 39 ships taken in the first nine months of this year, up from 34 in the same period 2009. Of these, 35 were hijacked by Somali pirates, including a chemical tanker in the southern Red Sea, the first time this has occurred in this area, according to the International Chamber of Commerce's crime service the International Maritime Bureau.

And as the monsoon abates and calmer weather prevails, attacks are expected to rise. The European Union's naval forces group EU Navfor and the US Department of Transportation's maritime administration are both warning ships of greater piracy risks in the eastern Indian Ocean from October onwards.

Already this month, pirates have targeted smaller product tankers and chemical carriers off the coast of Tanzania with the Panama-flagged 3,884 dwt tanker Asphalt Venture with 15 Indian crew seized 100 nautical miles southeast off Dar es Salaam. The crew on two other chemical carriers were luckier as the masters on both ships were able to out-manoeuvre the criminals. Both Panama-flagged, 2008-built, 7,310 dwt Anuket Jade and 2010-built, 13,020 dwt Mississippi Star thwarted attacks, according to EU Navfor.

These attacks highlight the risks of sailing close to East Africa, while the IMB said 44 per cent of all 289 attacks on shipping this year involved Somali pirates. Worldwide 137 incidents included the firing of automatic weapons and 66 involved knife threats. One seafarer has died, 27 have been injured and 773 taken hostage, some just temporarily, in the first 9 months of this year.

Despite this, successful hijackings in the Gulf of Aden have fallen in number this year. IMB director Pottengal Mukundan has praised the work of the world's navies in controlling pirate activity in this hotspot: "Increased intelligence gathering coupled with strategic placement of naval assets has resulted in the targeting of suspected pirate action groups before they become operational. However, this is a vast area and the navies cannot realistically cover it. The naval presence does, however, remain vital to the control of piracy in this area."

Tankers, especially the larger ones, are difficult to board because of the higher freeboard, although incidents in the past have involved very large crude carriers, as the hijacking of the Liberia-flagged, 309,999 dwt Sirius Star two years ago showed.

"A vessel with a freeboard of 12m is a far less attractive target than one with a freeboard of just 3m. Pirates pick their targets based primarily on perceived ease of boarding," says Bryher Bailey, marketing and business development executive at London based Maritime & Underwater Security Consultants. She draws attention to the fact that low freeboards when laden, slow speed and slow manoeuvrability limit the

effectiveness of evasive measures by tankers. "Tanker owners and operators should recognise that ease of capture is not the only factor in attack. The value of cargo and speed at which owners are likely to settle negotiation payments are also elements which enhance a vessel's attractiveness as a target for piracy." Each vessel has its individual vulnerabilities and these need be taken into consideration when preparing the vessel for a high-risk transit.

IMB and EU Navfor recommend owners use best management practices to evade pirate attacks, including ways to increase speed, alter course and conduct evasive manoeuvres, plus training crew to reduce their risk.

The IMB is especially concerned by the recent surge in attacks in the Far East and criminal activity against crew in the Gulf of Guinea, which mean tankers and seafarers are at risk in three vast regions. Attacks on shipping and crew has trebled in the South China Sea, off Malaysia and the Natuna Sea, with 33 piracy attempts and 21 boardings in the first 9 months of this year. Attacks in Indonesia are up 35 per cent to 26 incidents this year. There have also been 40 attacks in the Gulf of Guinea, including 15 in the third quarter.

Nicholas Teo, deputy director of Asian intergovernmental agency ReCAAP ISC, says pirates were moving away from the Malacca Strait, which has seen concentrated patrols by Indonesia, Malaysia and Singapore, while attacks are driven by general crime more than hijackings.

"Pirates are opportunists. They take whichever ship is available and most of the incidents have involved pirates getting on board undetected, making away with small items, cash, laptops and mobile phones."

In response to pirate attacks and the limitations of naval forces, London insurance group Jardine Lloyd Thompson (JLT) was planning to hire a 20-strong private fleet of patrol boats manned by armed guards to bolster international navies in Somalia. The move would be to protect insured interests as an estimated US$300 million has been paid in ransoms and associated costs in the last two years. JLT senior partner Sean Woollerson says the private force would come under the control of multinational naval forces.

Threats to offshore interests in Nigeria have already led to the employment of private contractors Control Risk, Geos and Group 4 Securicor for security.

MARPOL amendments cut air pollution from ships

Article Courtesy of IMO News Issue 3

The revised Annex VI (Regulations for the Prevention of Air Pollution from Ships) of the International Convention for the Prevention of Pollution from Ships (MARPOL convention) entered into force globally on 1 July 2010, together with important reductions in sulphur oxide (SOx) emissions in specific areas. It was adopted in October 2008.

The main changes to MARPOL Annex VI will see a progressive reduction of SOx emissions from ships, with the global sulphur cap reduced initially to 3.50 per cent (from the current 4.50 per cent), effective from 1 January 2012; then progressively to 0.50 per cent, effective from 1 January 2020, subject to a feasibility review to be completed no later than 2018.

The revised Annex VI allows for Emission Control Areas (ECAs) to be designated for SOx and particulate matter, or NOx, or all three types of emissions from ships, subject to a proposal from a Party or Parties to the Annex, which would be considered for adoption by the Organization, if supported by a demonstrated need to prevent, reduce and control one or all three of those emissions from ships.

The limits applicable in sulphur ECAs are reduced to 1.00 per cent, beginning on 1 July 2010 (from the previous 1.50 per cent); being further reduced to 0.10 per cent, effective from 1 January 2015. This means that ships trading in the current ECAs have to burn fuel of lower sulphur content (or use an alternative method to reduce emissions) from 1 July 2010.
The revised Annex lists two ECAs for the control of SOx, and particulate matter: the Baltic Sea area and the North Sea, which includes the English Channel.

A new North American ECA, for SOx, nitrogen oxide (NOx) and particulate matter was adopted by IMO in March 2010. The regulations to implement this ECA are expected to enter into force in August 2011, with the ECA becoming effective from August 2012.

Progressive reductions in NOx emissions from marine engines also come into force, with the most stringent controls on so-called 'Tier III' engines, i.e. those installed on ships constructed on or after 1 January 2016, operating in ECAs.

Scottish SCWG Meeting Nov 2010

Article by Paul Rutherford

The Small Craft Working Group (UK) Scottish Branch held a meeting and training Seminar at Silvers Marine, Rosneath, Helensburgh over a two day period 15th & 16th November, 2010.

The arrangements successfully put together by the Scottish regions chairperson Fiona Dando.

The number of attendees was once again well into double figures. This included a number of Diploma Students. Silvers Marine's welcome was as good as ever from the MD, Mr Mark Aikman and his staff.

Day One

The first day after coffee and registration started with a small craft group meeting; the minutes by the penmanship of Ian Nicolson. These included subjects such as TMA's, insufficient notice for meetings of Certifying Authority matters. Contact details for someone who can answer technical queries at short notice in Certifying matters. These subjects amongst others as laid out in the minutes. Various issues were raised and minuted; this included the election of Tom Elder as Vice Chairman for the Scottish SCWG.

The first speaker of the day was on the subject of Small Craft Stability, freeboard and buoyancy, delivered by the Institutes friend and founder member Jeffrey N Casciani-Wood, the talk delivered with good examples, explained and illustrated by Jeffrey with his usual humour and forthrightness.

After a great buffet lunch the afternoon session continued with John Kilhams from HQ delivering words of wisdom on GRP/FRP craft. This supplemented by a visit to Silvers workshop hanger to view craft at various stages of repair for extensive damage by groundings and gelcoat stripping for osmosis treatment.

One particular example was the grounding of a yacht that had been on charter and had suffered extensive below waterline damage to the hull, keel and internal grid system. The vessel was under repair so the opportunity to view the stripped out interior was an excellent chance to explore the repairs already in place.

Later that evening the delegates re-assembled in the lounge of the Kilcreggan Hotel before enjoying a great evening and excellent meal.

Day Two

This started with a session of training regarding Certifying Authority and Stability, covering the subject along with the MGN280; this delivered by Ross Hunter. At one point, as well as Ross there was a further 5 Naval architects in the room, so a wealth of knowledge available for all to draw from.

Ross helpfully illustrated the subject (shown upper right) using a model hull form, a trough of water, weights and a crane jib constructed in Meccano.

It was very useful in demonstrating the effects of weight distribution and the free water effect of bilge water. Ross had previously carried out research on the subject in his bath!! (I know too much information!)

After another excellent lunch the subject of Report Writing was delivered by John Kilhams which raised some interesting points and suggestions to improve reporting, terms and conditions, contracts etc. The second day ended and delegates reluctantly left this great facility and the fabulous surroundings.

Our thanks go to Fiona for organising this event, Mark Aikman for agreeing to the use of the venue, clearly the speakers for their time and effort and the delegates for their attendance. The furthest distance travelled having been a delegate from Jersey.

All in all another great success at Silvers Marine, the dates for the 2011 Seminar were agreed and kindly granted by MD, Mark Aikman for Monday 14th and Tuesday 15th November, 2011.

City of Adelaide set for Australia

Courtesy of Classic Boat

Members will remember the article in a previous Report. Here is the decision:

The clipper ship City of Adelaide looks set to be transported to the city of Adelaide in Australia, following the decision of Scottish culture minister Fiona Hyslop.

The preferred bid, announced on Saturday 28 August at the Scottish Maritime Museum in Irvine, where the 146-year-old ship is currently located, will cause deep disappointment in Sunderland where councillor Peter Maddison has been mounting an energetic campaign to bring the Adelaide back to where she was built.

The minister took the view that the more developed plans of the Australian group represented `the only potentially viable alternative to deconstruction within the constrained timescale'. Hyslop did not however rule out the possibility of the two groups working together. By Peter Willis.

City of Adelaide, destined for South Australia

Energy efficiency gains for propulsion systems

Article Courtesy of Tanker Shipping & Trade
by Wendy Laursen

Two-bladed propellers and seabed friendly designs could improve the environmental footprint of tankers

Industry is looking at different ways of improving propeller performance, especially for tankers

A new joint industry project led by the Marine Research Institute Netherlands (MARIN) aims to bring a greater understanding of which energy-saving ducts and stators are best for different ship types and to look at ways of improving propeller efficiency' particularly for slower vessels such as tankers. The Refit 2Save project derives its name in part from a desire to examine the potential for two and three-bladed propellers as an option for improving the efficiency of slow steaming.

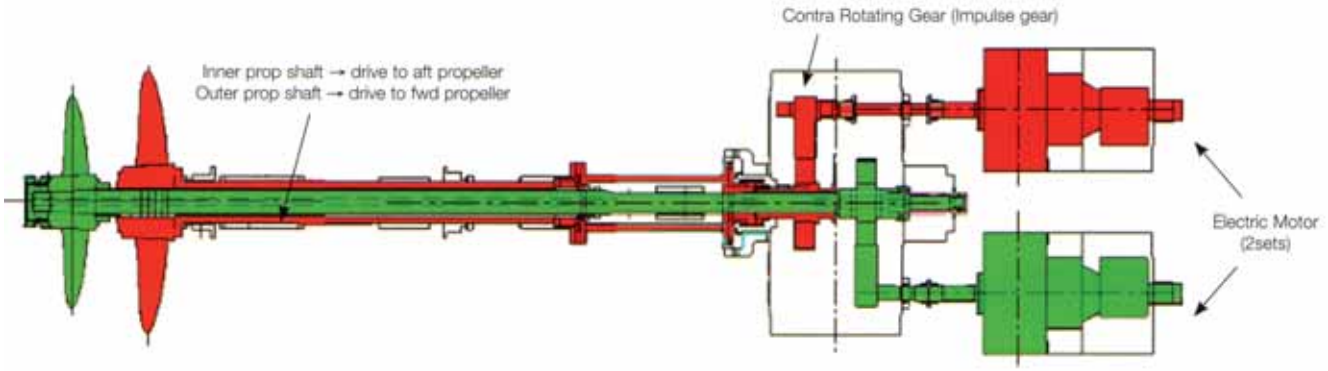
Many shipping companies are inclined to go with what shipyards propose, says Johan de Jong, manager ships at MARIN. However, he is receiving positive support for this project and another that targets thrusters on shuttle tankers. So far, Refit 2Save has attracted partners such as Maersk, Shell, Stolt-Nielsen, Mitsui, NYK, Daewoo Shipbuilding, Hyundai Heavy Industries, Wartsila, ABS, Lloyd's Register and Bureau Veritas. The two-year project will see computational fluid dynamics (CFD) applied to both existing designs and new ideas determined by the priorities of the participants.

An effective way of saving energy on VLCCs has been to increase propeller diameter from 7-8m (in the 1970s) to around 10m today. This has resulted in an increase in propeller efficiency of 50-60 per cent, but for single-skeg vessels, a 10m diameter is often the limit because of the draft of VLCCs in ballast condition, manufacturing limitations and the limited number of diesel engines with suitable slow speed for larger propellers.

Further efficiency gains require other measures, says Professor Kazuyuki Ouchi of the University of Tokyo, who has advanced a design for a Half Fuel-Oil Consumption Vessel. Key to the design is twin 10m propellers with a matching twin-skeg hullform. This increases propeller efficiency by 18 per cent. Generally the hull efficiency of a twin parallel propeller system is less than that of a single-propeller system because of the wake gain, says Professor Ouchi, but this can be avoided with proper design. "The total energy saving of the large-diameter twin-propeller system with twin-skeg hullform is estimated to be about 8 per cent in the case of a VLCC in a fully loaded condition," he said.

Devices such as propeller boss cap fins offer a reduction in required power of about four per cent and Professor Ouchi estimates that the injection of air bubbles under the hull will achieve a 20 per cent power reduction. The use of two derated main engines in parallel will achieve a six per cent fuel reduction and heat recovery systems can achieve another 10 per cent. Reducing the air resistance of the superstructure, making use of weather routing and other measures to reduce the sea component of drag could increase the savings to 50 per cent, he says.

Becker Marine Systems has introduced composite rudder flaps and stocks for its high-efficiency rudders and has consequently achieved weight reductions of over 50 per cent in these components. It has also developed the Becker Intelligent Monitoring System (BIMS) for its flap and Schilling rudders which could improve the performance of shuttle



IHI Marine United of Japan has developed a diesel-eletric propulsion system combined with CRP

tankers. Becker has discovered that rudder movements in dynamic positioning (DP) often exceed the rudder angles actually required because the impulses to the steering gear generated by DP and autopilot systems use preset rudder angles. If the control system defines movement in terms of side force instead, much smaller rudder angles could achieve the desired result. The sensors of the BIMS transmit rudder data such as forces, torques and loads in order to minimise movements of the rudder, exciter and propeller. Holding the ship's position with smaller and fewer rudder and propeller movements will reduce energy consumption and wear, says Becker.

The Overlapping Propellers System has been developed that uses bilge vortices to obtain high propulsive performance. Developed by Masaki Anda and Kazuyuki Ebira of Kawasaki Shipbuilding Corporation and Yasunori Iwasaki of the Akashi Ship Model Basin in Japan, the system has been shown to bring horse power savings of over 10 per cent compared with single-skeg vessels. In conventional twin-propeller systems, the load of each propeller is half that of a comparable single-propeller system, resulting in higher propeller efficiency. However, the propeller centrelines are some distance from the bilge vortex centrelines and cannot take advantage of them.

With the Kawasaki Overlapping Propeller System, the centre of each propeller is close to the hull centreline and about half of each propeller overlaps. Each propeller rotates in the direction opposite to that of the vortex and each is raked, the fore propeller forward and the aft propeller backward. By having the shaft supports in the low flow speed region close to the hull centreline, the added resistance created by shaft brackets is negligible, says the developer. The configuration makes it possible to reduce the length of the propeller shaft between the stem tube and the propellers, eliminating the need for bulky supports and complex hull design seen in twin-skeg vessels. Apart from a stern boss, the hull is identical to conventional single-propeller hulls.

Propeller cavitation and bearing forces comparable to a single-skeg arrangement were achieved. A six-bladed propeller design with a skew angle of 24 degrees was tested on a model of a large LNG carrier. Differing pitches were used for fore and aft propellers to ensure equal thrust despite the different wake distributions of each propeller. The result was a power saving of 12-13 per cent compared with a single-propeller vessel. A further four per cent gain could be achieved with a Kawasaki Rudder Bulb System.

There are some VLCCs in service with contrarotating propellers (CRP) which have been shown to improve efficiency by around 10 per cent through the recovery by the aft propeller of rotational energy lost from the forward propeller. IHI Marine United (IHIMU) of Japan has developed a diesel-electric propulsion system combined with CRP with the aim of making diesel-electric propulsion more fuel efficient.

"While electric propulsion has many advantages, its fuel efficiency is generally worse than a conventional diesel engine due to the energy conversion loss which arises in the electric components," says Yasuhiko Inukai, manager of hydrodynamics engineering at IHIMU. "We have developed an environmentally friendly and economically efficient system with our CRP Electric Propulsion System (IHIMU-CEPS). Several vessels have already been delivered with IHIMU-CEPS and their excellent performance has been verified during sea trials."

One of the vessels is a 1,230 dwt chemical tanker. Fuel oil consumption, and therefore GHG emissions, has been reduced by about 20 per cent compared with a similar sized vessel with standard propulsion. Noise and vibration has been dramatically reduced and the low-speed manoeuvrability of the vessel has significantly improved due to the higher torque provided by the electric motors.

Notably, model tests conducted by Mr Inukai have shown that hull efficiency can be improved by CRP due to a large wake gain — the lower propeller inflow reduces the required horse power because of the difference between the suction field area in front of CRP and a conventional propeller. Comparing the same hull form with CRP and with a conventional

The Kawasaki Overlapping Propeller System. The centre of each propeller is close to the hull centreline

propeller, Mr Inukai found improvement over a wide range of propeller load conditions.

Design flexibility for the aft hullform generally increases with diesel-electric propulsion because the propulsion motors need less space than diesel main engines.

"Designs for several kinds of vessels have been completed, including a 2,200 dwt oil tanker and their performance has been verified by sea trials," said Mr Inukai. IHIMU continues to improve the hull-CRP interaction of its designs and to develop other new technologies, such as cell propulsion systems.

Scouring from propellers and thrusters can result in mounds of sediment developing in ports and the exposure of underwater structures that can subsequently suffer increased corrosion rates. Dr Wei-Haur Lam of Dalian University of Technology, China, has developed a technique for more accurately predicting propeller scouring of the seabed which could also be used to design seabed-friendly propellers through reverse engineering.

Dr Lam and colleagues have used laser doppler anemometry to characterise the axial, tangential and radial properties of the water jet from propellers. The flow characteristics from a nozzled or ducted propeller are slightly more damaging than in the case of free-running propellers. However, the large number of free-running propellers in operation means they are of greatest concern, says Dr Lam.

Harbour authorities may need to install concrete mattresses or dredge sediment as a result. "About half of the harbours in the UK face scouring problems. Larne is one of the earliest harbours concerning the propeller jet induced damage and conducted essential remedial works to maintain the high quality of the water channel," said Dr Lam, who believes it is possible to optimise pitch ratio, blade number and the skewness of the blade to reduce scouring risks without changing the efficiency of the propeller.

By quantifying individual components of the jet, the new technique can facilitate the development of new propeller designs. "From a propeller design point of view, we could make the velocity of the jet decay faster than traditional designs. In addition we can control the jet expansion in order to increase the clearance between the jet and the seabed."

Pilgrim's further progress

Article Courtesy of Classic Boat
Nic Compton

Restoration of the 1885 Brixham trawler Pilgrim, supported by a E950k Heritage Lottery Fund award (YN, CB260) is well under way at Butler & Co. The whole of the centreline has been replaced, as well as the frames and about half the planking.

"Our first job was to stabilize the structure in dry dock, as she was going out of shape at the turn of the bilge," says Ashley Butler. "Once the hull was properly supported, we could cut out the stem and keel, and start rebuilding from the bottom upwards. It was like taking the bottom 3ft out of a church! The biggest head scratcher was the counter stern, which had been altered. We've rebuilt it as we think it used to be, but slightly more complex to prevent it drooping in the future." Pilgrim is thought to be the oldest of the four surviving Brixham trawlers.

Shores and Wedges

Article by Eur. Ing. Jeffrey N. Casciani-Wood Dip. Mar. Sur.

One might be forgiven for thinking that shoring and the associated wedges are such common items in boat and shipyards that there is not really much to say about them.

From my long experience in the industry, however, I have come to the conclusion that that is an incorrect assumption.

Boatyards use a wide variety of side supports to prevent the boat falling over. These range from properly cut and set hanging and breast shores to bits of gash timber, oil drums or blocks and wedges jammed under a boat's bilge keels. It is part of his duty of care under the Health and Safety at Work Act (HASAW) of 1974 that the marine surveyor should check to see that the boat is properly shored and fully supported and that the shores are wedged hard up.

He should also remember that, when walking about on the deck, he is applying to the hull a large and often rapidly varying overturning moment. A boat ashore should be as upright as possible and must be safe for him and others to walk around on and if it is not he should not attempt to clamber on board. It is the boatyard management staff's or the owner's responsibility to ensure that the boat is safe for the marine surveyor to inspect but it is his own responsibility to see that he does not break his legs or commit suicide. The marine surveyor should never rely on statements such as "Old Charlie has been chocking boats up for the last fifty years: He knows what he is doing." The marine surveyor should check for himself.

Experience will often show that Old Charlie knows absolutely nothing about boat structures and the forces and stresses in them whether they are afloat or ashore. He should also remember also that there is a correct and an incorrect manner of placing and setting wedges. On any kind of boat, an incorrect spacing and placing of bilge shores can cause the hull to distort badly leading to often severe internal damage and even total structural failure. Shoring is best placed just behind bilge keels or under heavy side rubbing strakes or wales at about 1300 mm (4' 0") spacing. They should be fitted in way of transverse frames or, better, bulkheads to ensure that the forces are correctly spread over the boat's structure – a point often ignored by the Old Charlies of this world.

Shores

Shores are of three main types and these are: -

1. breast shores.
2. hanging shores.
3. bilge shores.

Breast shores are most commonly seen supporting a vessel in a dry dock and run horizontally from the dry dock alter to the ship's side. Hanging shores are set vertically under either the ship's rubbing strake or belting or under (in clinker built vessels) one of the plate seam edges while bilge shore are, as their name implies, set vertically under the vessel's bilge.

Hanging shores should set (or lay) inboard at the head by between 10º and 15º and breast shores should be set such that their heads lift upward by about 2º to 3º or about 35 to 52 mm per metre of length. They should always be set on the line of a frame or, better, a bulkhead and the head of the shore should be dubbed off to fit to the shape of the shell. The packing or sholing is usually made of 500 mm x 175 mm x 75 mm (18" x 9" x 3") pieces cut from fir deals and are often called caps.

Shores should be placed such that the main line of force or load travels through the middle third of the shore's cross section to prevent instability. This is known as the middle third rule. Shores are not put but are set in place and the angle between a hanging shore and the ship's side is also called its set. Breast shores should be set to align with each other and are then said to be in winding.

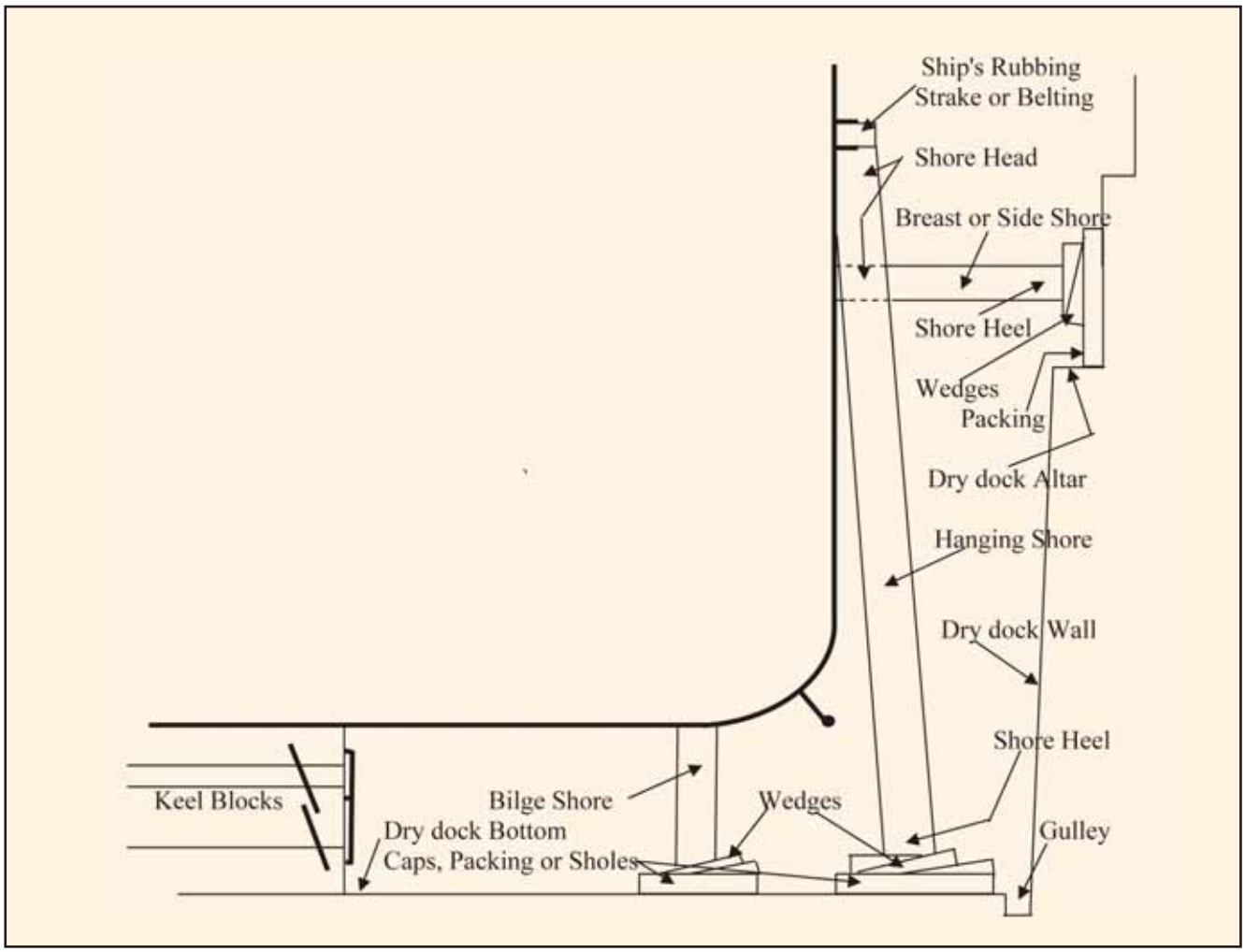


Figure 1 Dry Dock Shoring Arrangements

The load that can be carried by a shore may be estimated from: -

$$P = 5.7d^4/L^2 10^3$$

For hanging shores divide by 3.

Shores are usually made of ash, pine, chestnut, fir and, occasionally, spruce or larch and, using Euler's formula, it may be deduced that the allowable length/diameter ratio of any solid round wooden shore should not exceed: -

$$L/d = 35[E/\sigma]^{½}$$

where

E = Young's modulus for the material of the shore kg/cm²
L = shore length m
P = shore load t
d = shore diameter cm
σ = allowable stress for the shore material kg/cm²

Vertical shores are sometimes described as being dead, breast shores as flying and hanging shores as angled but these terms are rare in shipyards and come from the construction industry. Typical values of E and the ultimate tensile strength in compression of some timbers often used for shoring in boatyards may be found in Table 1 below. The theoretical L/d ratios given in the table should, for small boat work, be divided by a safety factor of at least 2.

Table 1

Timber	Young's Modulus E	UTS in compression	L/d
-	lb/in²	lb/in²	-
Ash	3,500	2,500	41.40
Chestnut	2,000	2,500	31.31
White Pine	2,300	3,200	29.67
Norway Pine	2,500	3,100	31.43
Douglas Fir	3,400	3,900	32.67
Spruce	2,300	2,400	34.27
Larch	3,100	3,600	32.48

Typical E and UTS Values for Commonly Used Shoring Timbers

Photograph 1 Shoring: How it should NOT be fitted

The wedges in the Photograph 1 below are in upside down and the wooden structure is held in place by the flat piece of timber partly fitted under its heel.

Such a piece of timber may easily be kicked out of place leaving the 'shore' to fall out and the boat insufficiently supported. The shores also have an open head angle which is never safe as the shore can spew.

Wedges

The marine surveyor should know that a wedge is a triangular shaped tool, a compound and portable inclined plane and one of the six classical simple machines. It can be used to separate two objects or portions of an object, lift an object or hold an object in place. It functions by converting a force applied to its blunt end or heel into forces perpendicular (normal) to its inclined surfaces.

Although a short wedge with a wide angle may do a job faster, it requires more force than a long wedge with a narrow angle. The origin of the wedge is unknown probably because it has been in use for well over 9,000 years.

Wedges can be used to lift heavy objects, separating them from the surface they rest on. Splitting wedges are used to split wood along the grain. A narrow wedge with a relatively long taper is called a slice and is commonly used in shipyards. The mechanical advantage of a wedge can be calculated by dividing the length of the slope by the wedge's thickness: -

$$MA = L_F/T$$

where

MA	=	mechanical advantage	-
LF	=	face length of wedge	mm
T	=	thickness of wedge	mm

The more acute, or narrow, the angle of a wedge, the greater the ratio of the length of its slope to its thickness and thus the more mechanical advantage it will yield. However, in an elastic material such as wood, friction may bind a narrow wedge more easily than a wide one. The common shipyard wedges have a mechanical advantage of from 5 to 8.

The marine surveyor must not forget to put the wedges in the proper way up with the right angle uppermost and the long grain running along the top of the wedge and the short grain in the corner at the bottom.

It is astonishing how many boat yards put the wedges in upside down and then wonder why the short grain corners split and break off making the wedge useless. English elm makes the best wedges – it doesn't split easily.

Hanging shores are often fitted with so-called backing wedges to ensure that the load on the shore carries through the middle third at the heel as well as at the head. Shores not so fitted may well be unstable and may spill out at the heel.

Figure 2 over the page gives the more common shipyard terms for wedging.

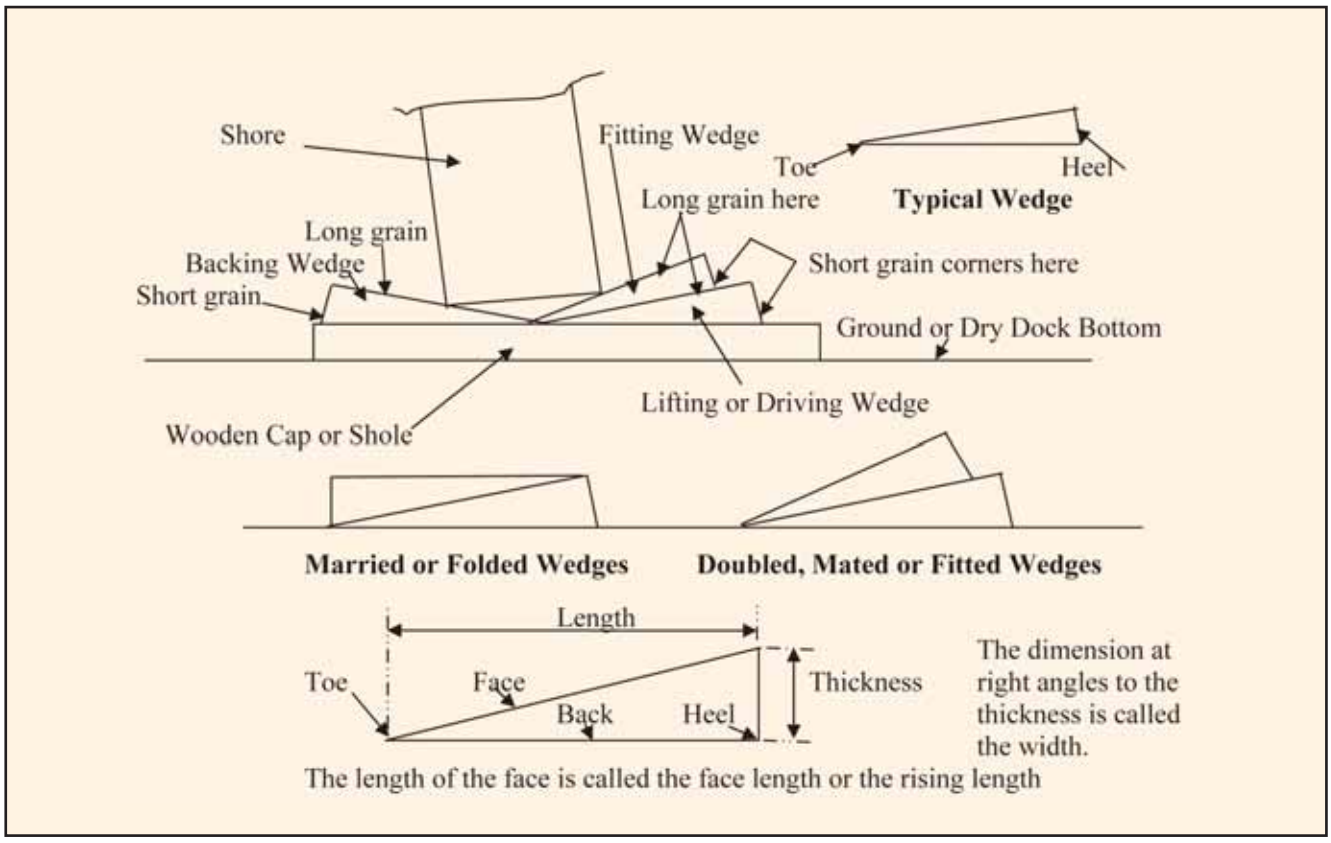


Figure 2 Wedge Terms

The landing area of a wedge is its face length times its width. Wedges are designated according to their length/depth ratio as in Table 2 below. In some yards along the London River sliver wedges were sometimes called slices. The information given in Figures 1 and 2 above is that learned by the author during his apprenticeship years at the Orchard Dock.

Table 2 Wedge Sizes

Wedge Type	Length	L/D Ratio
Short Block	8 inches	3 to 4
Long Block	9 to 15 inches	3 to 4
Short Sliver	20 to 30 inches	3 to 4
Long Sliver	30 inches	4 to 5

Placement of Wedges

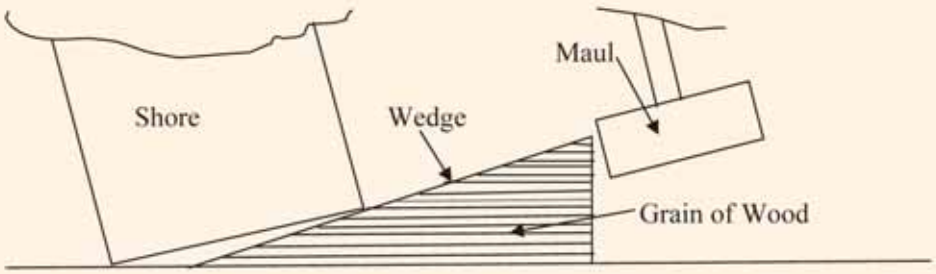
Many people with whom I have spoken do not know that a wedge can be set upside down. After all it is only a triangular shaped piece of wood so what does it matter which way up it lays. The sketches on the following page in Figure 3 show the difference and the reason.

The reason why English elm *(Ulmus capestris)* is the best wood for wedges is that it has a convoluted grain and does not split easily.

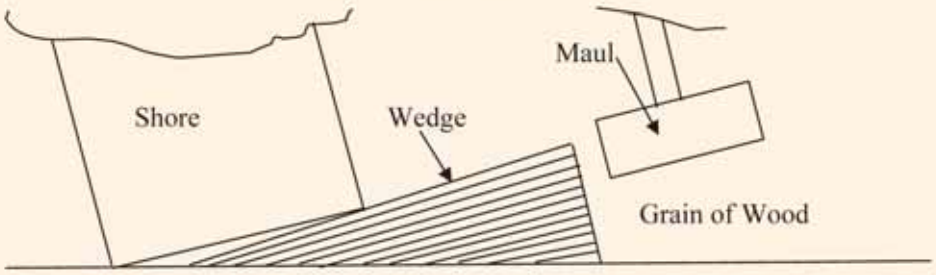
Use of Incorrect Supports

Needless to say the use of gas cylinders - as is sometimes found - as a boat support should be actively discouraged, as it is positively dangerous. The gas cylinders will certainly have a residual amount of liquified petroleum gases in them that, if the cylinder valve is damaged by the weight of the boat, could escape with disastrous explosive and fire possibilities. Additionally, the gas cylinder tops do not form an adequate area for the support of the wooden packing. Such an arrangement is probably also illegal under HASAW 1974 and the Gas Safety (Installation and Use) Regulations 1996 if not elsewhere. One also finds old oil drums under a boat and the marine surveyor should know that these expand and contract with the ambient temperature and can and do work loose. In all of these latter matters it is the marine surveyor's responsibility for his own personal safety and for that of other people in the yard to ensure the landed stability of the boat and to see that she does not fall over.

Eur. Ing. Jeffrey N. Casciani-Wood
Dip. Mar. Sur.
Chartered Engineer
F.R.I.N.A., F.C.M.S., Hon.M.I.I.M.S. F.LL.A., F.I.Diag.E.



Position 1 Wedge set upside down and, when struck will split along the red line becoming useless



Position 1 Wedge set corrwectly and, when struck will not split along the grain and will be re-useable

Figure 2 Wedge Terms

MALTA

– A Report By Capt Reuben Lanfranco MIIMS

Transport Malta, which is the authority responsible for Merchant shipping and Ports is in the final phases of determining a new policy for the appointment of Government approved (or appointed) surveyors of ships. This policy is intended to replace the articles in the Merchant Shipping Act which do not specify a policy for the selection of Government appointed surveyors of ships and which, as a consequence has led to no new surveyors of shipd being appointed in the past years.

It is hoped that the new policy will allow for the appointment of more surveyors, which are desperately required for the ever growing Malta Merchant fleet.

Surveys on ships for the purposes of Malta flag registration can only be carried out by Government appointed surveyors of ships and unfortunately, at the moment there are no more than six of these surveyors of which only about four are active.

The Development contact for IIMS in Malta had also submitted material about the IIMS to the CEO of Transport Malta to assist the policy-making board on possible ways of identifying the key traits and requirements of a Marine Surveyor. It is hoped that the new policy will include some of these recommendations and it is also hoped that newly appointed Government approved surveyors of ships will avail themselves to the benefits of membership with IIMS.

Singapore Seminar 18th & 19th November 2010

The IIMS and STET of Singapore organised the first South East Asia conference to be held for two years. Delegates from Australia, Vietnam, Singapore, China, India, Indonesia, South Korea, plus several other areas came together in Singapore for this seminar in November.

Whilst the number of attendees was not as good as the Indian conference, the quality of speakers was excellent. The Seminar started with a welcome by the President Mr Peter Morgan and was then "Hijacked" by Capt Peter Lambert the Regional Director for Australia, who asked delegates to review themselves to see what they were doing and how they did it. This included the idea of appointing so called "Librarians". He explained the definition of a librarian as someone who had knowledge and skills and was able to give this to people that needed them. He urged delegates to speak to the people he had identified as librarians and to tap into their knowledge base.

The speakers covered a variety of subjects and the full list of speakers and their presentations is available on the IIMS website under "Singapore Seminar".

During the seminar, Mr Zenon Cheng was appointed Regional Director for Hong Kong, China and Taiwan, Korea and Japan. Mr Mike Wall has stood down as In-Country Representative for Hong Kong and had recommended Zenon Cheng to take over. However, with the increase in interest in that part of the world, it was decided that Mr Cheng should cover all of the Chinese area. The President and Management Board wish to record their thanks to Mr Mike Wall for his considerable efforts on behalf of the Institute in Hong Kong over a number of years.

Indonesia

Meeting of the Association of Independent Surveyors of Indonesian (AISI)

Following on from the Singapore seminar, The President, CEO and Capt Lambert were invited to attend the Annual General Meeting of the AISI, by Capt Irawan Alwi the Regional Director for South East Asia.

Discussions took place with Capt Alwi with regard to his area of responsibility. With the changes in the Chinese area, it was decided that Capt Alwi will now cover the following areas.

Indonesia – Singapore – Malaysia – Vietnam – Thailand – Myanma - Philippines – Cambodia Laos – Borneo

The President, CEO and Capt Lambert held a tutorial for Indonesian students in the afternoon with some 18 students attending. The meeting was enhanced by a display of Balinese dancing by three small girls, who were delighted by the present of chocolates from the IIMS President for their efforts.

Strong links have been forged with the AISI and it is hoped that many of the company surveyors will join the IIMS as members.

The New Management Has Been Chosen, AISI Ready To Face 2013 Free Trade

Association of Independent Surveyor Indonesia (AISI) was formed on May 29, 1981 in Jakarta with a purpose to mediate between Surveyor's needs and Government and Business World. In doing their activities and work program, AISI board works collectively as with other members' agreement in developing the organization in the future.

On November 22nd, 2010 located in AISI Secretariat Building JAMKRINDO 7th Floor, Kota Baru Bandar Kemayoran, North Jakarta, there was a program of AISI Management Board voting from 2007-2010 period to 2010 -2013 period.

AISI management board for 2007-2010 period were as follows: General Chairman – Capt. Irawan Alwi, MBA; Head I – Drs. Auliya Martam; Head II – Ismed Syahdan, SE; Head III – Ir. Hidayat Hardian; General Secretary – Ir. Michael Wiranto; Treasurer – Ir. Bahrun A. Saad.

This time the voting was done fairly and with a democratic way. There were 2 (two) rounds where each member of AISI was free to vote for General Head for 3 (three) years period.

At the first round, there were 8 (eight) elected candidates, which 3 (three) candidates who got lowest voice then got themselves eliminated, and another 5 (five) nominated candidates were Taufik Hidayat with 26 voices; Irawan Alwi with 25 voices; Wiranto with 14 voices; Lingga Wisesa with 8 voices; Djoko Prijono with 8 voices.

At the second round, a name who got highest voice, he will automatically be the General Chairman. The highest voices are as follow: Capt. Irawan Alwi with 17 voices; Taufik Hidayat with 16 voices; Djoko Prijono with 2 voices; Lingga Wisesa with 1 voice; Wiranto with no voice.

Based on those results, thus Capt. Irawan Alwi, MBA is the elected winner for the second period for 2010-2013 in AISI Management Board.

Capt. Irawan Alwi, MBA
(photo isg)

In that event, there were government representatives who came to attend like BUP Director, Minister of Trade of Indonesian Republic, Rukman Basit represented BUP (Registration and Business Development) Directorate, Khairul Rahmat represented PT. Pertamina Pjs VP. Planning & Commercial ISC, and Suharsono represented Indonesia Coal Mining Association (ICMA).

As Capt. Irawan Ali has won the voting, he will bring AISI to be a considered association in Indonesia and International world as it has been planned: 1. 10 (ten) Certificates of Competency (COC), National Certification; 2. Get International Certification by IIMS (International Institute of Marine Surveying); and 3. AISI would Go International.

Moreover, as Capt. Irawan Alwi is a Regional Director of IIMS that covers Singapore, Malaysia, Thailand, Myanmar, Philippine, Vietnam, and Brunei; so, the benefit for this surveyor association is really big for AISI's growth in the future, especially in facing Free Trade of 2013.

Congratulation for Capt. Irawan Alwi, MBA to leading AISI for the second period!

(photo isg)

Pilgrim's Mayflower to set sail again

Article Courtesy of Ship & Boat Building

The maritime town of Harwich in Essex UK built generations of sailing ships for the Royal Navy in the 17th through 19th centuries, followed by sailing barges, fishing and commercial craft before other port activities took over the waterfront sites. One notable vessel in the town's history was the Pilgrim Fathers' Mayflower, which was captained by a Harwich resident, Christopher Jones, and which may have been built in the town. The Mayflower had certainly traded from Harwich before it set out, via Plymouth, for the New World in 1620.

Now a group of business people and local entrepreneurs have formed the Mayflower, Project to build a facsimile of the three masted sailing vessel as a catalyst to increase maritime activity in the town, provide training and employment in a range of traditional and modern ship-building skills and create a visitor attraction to boost the local economy.

While it is not the first such facsimile to be built, this will be the most thoroughly researched and most painstakingly designed, able to meet the stringent regulations of the MCA and US Coast Guard for ocean going passenger vessels. For this little ship is designed to sail across the Atlantic with 12 paying passengers and crew, rather than just sit at a static berth waiting for tourists. It will be built to resemble a 17th century merchantman in the traditional manner, with carvel planking on sawn frames, while meeting the latest requirements in terms of stability, strength, safety, sea keeping and sustainability.

The length of the hull will be 26m with a beam of 7.9m and a draft of 3.66m. The displacement tonnage will be 275 tons. The vessel will have a range of 1,220 nautical miles at a cruising speed of 7 knots. The twin diesel engines, bow thrusters, watertight doors and the latest navigation and safety aids will come into play once the vessel goes to sea but when in static exhibition mode any 21st century features will be hidden away from sight, presenting as authentic a vessel as possible.

There are no surviving plans or contemporary images of the original Mayflower but back in the 1950s a replica was constructed in Brixham and sailed to the USA.

This latest design for the Mayflower of Harwich is based on the original source material by experienced naval architects Westbrook Marine Projects Ltd.

All major work to the ship is to be carried out by skilled and experienced tradesmen in accordance with established good shipbuilding practice. But apprentices and volunteers will be actively encouraged to join this community focused project and any work by them is to be fully supervised and checked. Once the vessel is built and in service, the Project members plan to continue building other types of vessel at Harwich and establish a maritime heritage centre in the town, with the Mayflower as the flagship of the Harwich Fleet.

A website has been set up at www.harwichmayflower.org and there is even a Pilgrim's Passage beer produced by the local brewery. By Graeme Ewens

This earlier recreation, Mayflower II, was built at Brixham in the 1950s and is currently based at Plimoth Plantation, Plymouth, Massachusetts USA.

Report on IIMS - INDIA Seminar at Mumbai

25th - 26th October 2010 at the Convention Centre, Ramada Hotel, Powai, Mumbai, India.

The 25 th of October 2010 dawned on us as an exceptional and extraordinary day.

It was the long awaited Day 1 of the Seminar organised by the Indian Marine Surveyors Association (IMSA) in collaboration with the International Institute of Marine Surveying (IIMS) titled "Future of Marine Surveying" to be held n 25th & 26 th October 2010 at the Convention Centre, Ramada Hotel, Powl, Mumbai.

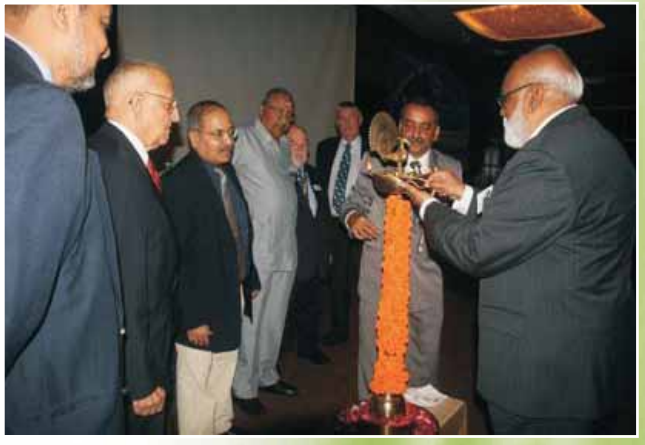
Amidst cheers and greetings being witnessed at the venue during the morning coffee break, one could hear praises on the Pre-Seminar Workshop that had been conducted the day before, on 24 th October 2010, at the West End Hotel, Mumbai. This Workshop was symbolic to the ethos of the IIMS and its emphasis on Continual Learning.

Come 9 A.M. and whilst most of us from the Executive Committee for this seminar were putting the very final finishing touches, the shrilling sound of the Bosun's pipe blown by Cdr. Rahul Dhawan was heard heralding the commencement of the IIMS-India Seminar, much to the pleasant surprise of ALL HANDS present for this Seminar.

Capt. Satish Anand, Regional Director, IIMS, India, brought to the notice of the present dignitaries and the delegates the good ol' ritual of blowing the Bosun's pipe dating back to the days of sailing ships wherein different commands were piped using the Bosun's pipe and the same could be heard over the loud noise of wind & waves. Incidentally, blowing 'All Hands' using the Bosun's pipe was a regular hallmark over the two days of the Seminar. It was heart-warming to see the delegates reacting positively to the blowing of the Bosun's pipe.

Capt. Satish Anand, Regional Director, IIMS-India, delivering the Opening Address.

The honourable Day 1 Chief Guest, Capt. J. C. Anand, Chairman of Indian Register of Shipping



Lighting of the Lamp by great icons of the Maritime Industry.

The honourable Chief Guest, Capt. J. C. Anand, one of the great icons of the Indian Shipping Industry and Chairman of Indian Register of Shipping, presided over this function on Day 1 with a Welcome Address. He expressed his delight at the efforts being made by the Institute in bringing all Surveyors under one umbrella and providing them a body which can voice

Mr. Peter Morgan, President IIMS, U.K. found the lighting of the lamp an inspiring Indian tradition.

their concerns at appropriate forums and also provide representation through a body to the Governmental Bodies. He was happy that the Institute was promoting professionalism and the advancement of knowledge in the profession of Marine Surveying, was maintaining high professional standards decreed in a Code of Conduct and was verifying the competence of those seeking to become members of the Institute and that it had a system of exclusion of members who do not maintain the highest standards by board members of the Institute.

The honourable Chief Guests, Chairpersons & elite Speakers on Day 1

He lauded the efforts of the Institute to bring together experts whose specialised knowledge and practical expertise will enhance the reputation of Marine Surveyors and Marine Consultants. To add further flavour to the already highly elite marine personalities present, the Directorate General of Shipping, Dr. Satish Agnihotri, the Chief Guest for Day 2, decided to attend on Day 1 too, since he was so taken in by the topics of the papers for that day and was extremely keen to attend these too. As far as we were concerned, but not without a flutter, we could not have been blessed further.

What followed next was the traditional lighting of the Lamp by dignitaries and Senior personnel from the Maritime Industry, which symbolized the very purpose of the Seminar viz. to dispel darkness around from the profession of Marine Surveying. Mr. Peter Morgan, President IIMS, U.K., found the lighting of the Lamp an inspiring Indian tradition.

The Convention Centre hall commanded a large audience for the Seminar from the Marine Surveying Industry, Ship Owners, Ship Managers, Maritime Lawyers, Average Adjusters, Classification Society surveyors and of course the Indian and International surveying fraternity, with both the stalwarts and the up-coming surveyors being present.

The Display of the IIMS Seminar Banner with the theme of the Seminar and the names of the sponsors & supporters, and also

Dr. P. Misra, Principal Officer, MMD, Chennai, as the Chairperson (Day 1 Session 1)

their individual standees, graced the stage and the inner wing of the Convention Centre hall, proudly exhibiting the strong support received for this Seminar from both the Indian & the International marine industry. The Stage symbolized the bridge of a ship with the Red side-light on the port flank and the Green side-light on its starboard flank, with a Captain's telescope commanding its rightful place in the centre of the table opposite the session Chairperson. A Magnetic Compass was placed on the leading corner of the Stage to guide us all on to the charted course. The Whole presentation inside the Convention Centre hall conveyed the imminence of an important marine event.

Delegates in attendance listening the Speakers.

The honourable Chief Guests, Chairpersons & elite Speakers on Day 1

Mr. Peter Morgan, President IIMS, U.K. as a Speaker.

Mr. W. A. Henderson, Chairmen, M/s Henderson International L.L.C., Dubai, as a Speaker.

Capt. Amulya Singh, Director, M/s A.K. Services Ltd., Speaker.

Mr. S. Venkiteswaran, Senior Advocate, as a Speaker.

Day 1 flowed well with the morning 1 st Session titled "Developments in Law & Practice" and was chaired by the newest IIMS member, Dr. P. Misra, P.O., M.M.D. Chennai. The afternoon 2nd Session titled "The m Profession of Marine Surveying" was chaired by Mr. AWJ (Tony) Fernandez, emphasizing on the finer points of the Surveyor's Role. Capt. Harry Subramanium ended the Day 1 for us with his side-splitting paper on "Traits of a Good Surveyor" under this 2 nd Session. Even the dead would have defied their eternal sleep to listen to him.

Yes, the evening Gala Networking Dinner followed thereafter attended by around a 100 guests, dignitaries and delegates, all merrily absorbed whilst interacting and discussing the evening away. Fortunately for all of us it did not turn into a very late evening since Day 2 was just round the corner with more in-depth material on offer.

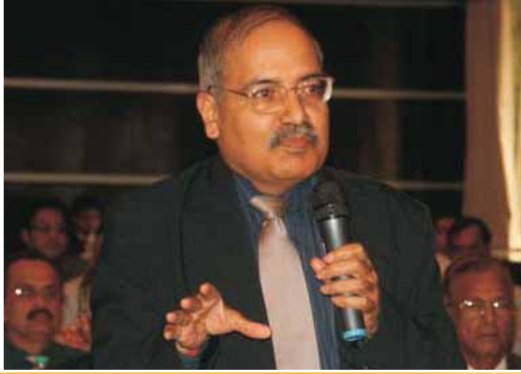
Day 2 began with the customary calling of 'All Hands'. Dr. Satish Agnihotri, Chief Guest for Day 2, ensured he did not miss anything and was there at the Convention Centre well ahead of the opening of the Session on Day 2. To compliment him and the Seminar further, Capt. J. C. Anand too arrived subsequently, ensuring he did not miss out on the exceptional quality of the papers to be presented that day by the elite speakers, both from India and abroad. Dr. Satish Agnihotri, in his welcome address, expressed his happiness at the endeavour of the Institute to address the issues in the Surveying profession. He, in fact, tasked the Institute with preparation of a FAQ booklet for various categories of personnel in the Merchant Marine so that they are aware of the expectations from them. He also expressed his happiness that now the Surveyors would have a body (referring to the Indian Chapter of the IIMS yet to be officially announced) which could interact with other policy making bodies to resolve issues.

His welcome address was followed by the release of a Souvenir to mark the occasion of the IIMS-India Seminar. The Souvenir has been beautifully designed in the form of 2011 year diary and contains useful information to the Surveyors. Many stalwarts of the Industry have provided useful articles of information in this Souvenir. 'The Aspects of Loss Prevention' followed by 'Marine Surveying : Present & Future' were the 2 x Main subjects for the morning & the early afternoon sessions, ably complimented by a paper on CPD by Mr. Milind Tambe. To crown it all, the floor was finally set open in the late afternoon period for an Open Session for the elite panellists and the delegates to interact, discuss and expose the professional aspects of marine surveying, its present status, the problems being faced and how they could be resolved, and, the future expectations of the maritime industry from the marine & cargo surveying fraternity.

During the Day 2 Seminar, M/s Constellation Marine, U.A.E. conducted a quiz from the papers already presented during the Seminar and the Winner

Mr. Uday Moorthi, Marine Consultant, Dubai, speaker.

Capt. H. Subramaniam, Principal Emeritus, LBS CAMSAR, as a Speaker.



Directorate General of Shipping, Dr. Satish Agnihotri, the Chief Guest for Day 2

through draw of lots received a Scholarship for the IIMS UK Course on Yachts to be conducted at Constellation Marine UK. Even Cygnus Instruments, U.K. gave away a prize to the delegates from draw of lots. ,

The Institute recognised the potential of the Institute in India and announced their decision to open an Indian Chapter, which was appreciated by all. The Institute also recognized the contribution of the senior members of the maritime Industry and awarded Honorary Memberships to Dr Satish Agnihotri, Capt. J. C. Anand, Mr. AWJ (Tony) Fernandez and Capt. M.P. Karanjia, the latter two awesome stalwarts of the Indian marine surveying fraternity. It was truly an international seminar with 17 in numbers attendees coming-in from abroad. It was really special to have with us an IIMS members hailing from the tiny French Island of Reunion, off Mauritius. Our special thanks to all the international members for their determined support for this IIMS-India Seminar. This may be the first of its kind in India but definitely not the last by any measure.

In the closing speech of the Seminar, Capt. Satish Anand, as the Regional Director, India, for IIMS, U.K., proudly thanked all the attendees, both the Chief Guests, the senior dignitaries and the sponsors, both for the Event and the Souvenir. Special thanks went off to the Executive Committee who left no stone unturned to make this Seminar one worth its while. He saluted them all.

Capt. Satish Anand also stated that his task would stand incomplete if there was no mention of the Pre-Seminar Workshop on 24 th October 2010, which actually started the ball rolling for this Seminar. Hats-off to Cygnus Instruments for the morning session and to Mr. AWJ (Tony) Fernandez for the afternoon session, both sessions being acclaimed as most interesting and absorbing. The very fact that we had 42 attendees for the Workshop, it goes to show that the Continual Learning Programme does hold its own merit. We all would second that any day.

Eventually, it was time for curtains and one came away with an awesome feeling of togetherness, professionalism, comradeship and membership to contain us all. The success of the Seminar was writ large on the faces of the delegates who received good value for the time spent, the invitees who lauded the efforts of the Institute and the organizers of the Seminar, who had achieved the purpose of bringing the Institute to India. And as some wise men have said "All good things too come to an end", so it was for this very special Seminar in India. In the words of the Mr. John Lawrence, C.E.O., IIMS U.K., this was the best Seminar he had attended in his last 7 years with IIMS. Gentlemen, have we already 'raised the bar'. !!!

Jointly contributed by :
Cdr. Rahul Dhawan, MIIMS and
Capt. Satish PrakashAnand, FIIMS, Regional Director – India, IIMS, U.K.

Capt. M. M. Saggi, Nautical Adviser, D.G. Shipping, Mumbai, as the Chairperson (Day 2 Session 1).

Mr. Tony Fernandez, Average Adjuster & Risk Management Consultant, as a Speaker.

Capt. T. Rajkumar, Sr. Exec. Director, M/s J.B. Boda Surveyors Pvt. Ltd., Mum, as a Speaker.

Capt. Mukesh Gautama, M.D., M/s Wilson & Co., Mumbai, as a Speaker.

IIMS Website
Changes You should know about

The IIMS website has been under review for the last three months and by the time you read this, amendments will have been incorporated and available to all members.

The new front page looks like this:

You will have seen that there is now a new log-in facility for members. You only need to put in your membership number and your own personal account will appear. On this account are details of your membership, personal address and information that we hold on our file. This information can now be amended by you, through the submission section on your account. So if you're not happy with the information shown, you can now tell us immediately.

You will also see on this page the shop facility, for the purchase of merchandise, plus an invoice section, which shows, what invoices you have outstanding. There is also a facility to pay on line. The reason for this is to make it easier for members to pay their subscription without incurring a charge either at your end or at the IIMS bank end, this sometimes amounts to £13 (GBP) per transaction.

Please have a look at the website, Log-on and see what is now available.. If you have any ideas for changes that you would like to see, add them into the amendment section and submit to the IIMS Head Office. All will be noted and passed to the Chairman of the Professional Assessment Committee for review.

The Institute is also working to set up Branch Websites, based upon the main website, this will be managed by the IIMS Head Office, but will allow the local branches to submit information about themselves for their members use.

The Marine Surveyors Register

The New Register will be live from the 1st January 2011. This register will be published to all interested parties in the marine industry. The IIMS will seek government approval through local Representatives and also through the IMO. This Register brings with it an ID card that meets the requirements of ISPS and is verifiable through the website.

This Register will be advertised to members of the public to encourage them to use the register of surveyors instead of the unqualified people that inhabit the small craft world.

Membership of the Register is free to all IIMS Members. (See the article below re: membership and eligibility). IIMS members who submit an approved passport photograph will be included on the Register. The ID card will be issued on payment of the IIMS Subscription. This card will be valid for fifteen (15) months and will expire on the 31st March of the following year. A new card will be issued each year.

This new Register will not replace the IIMS website register, but supplement it and will introduce the title of Registered Marine Surveyor (RMS) or Registered Marine Consultant (RMC) with a logo and approval to use the logo on reports. These acronyms may be used after the members name.

Non-IIMS members who are members of recognised marine surveying organisations will be invited to join the Register whilst remaining members of their own organisation. They will have to pay an annual fee.

For more information about the Register or to send your passport photograph in for inclusion, please email to membership@iims.org.uk. Identity cards will be issued to all members on payment of 2011 subscription.

Membership Grades – Amendments to Current Levels

During a recent IIMS Management Board meeting, recommendations were made to amend the Membership Grades of the Institute. Here is the revised listing and members will see that a new level of membership has been introduced of Affiliate Member (AfiIIIMS).

The recommendation includes a phasing out of the Graduate Level of membership with all successful students being made Affiliate Members on completion of their Diploma Course. The amendments removes the ambiguity of the Graduate Level and makes the accession to the next level of membership easier to define. **The recommendation must be ratified at the AGM in May 2011.**

The Organisations that are currently affiliated to the IIMS will be reclassified as Allied Organisations.

Honorary	HonIIMS	Members of the Institute appointed as Honorary members by the Executive Board of the Institute.
Fellowship	FIIMS	Members of the Institute who have been nominated and appointed as Fellows in recognition of outstanding contributions to the Institute from the Marine Industry.
Full Member	MIIMS	Hold a recognised marine surveying qualification and have at least five years full time practical experience as a marine surveyor.
Associate	AssocIIMS	Applicants who have at least three years full time practical experience in marine surveying and up to date with CPD.
Technician	TechIIMS	Hold a recognised qualification with at least three years full time practical experience in a marine related field.
Supporting Member	SupplIMS	Members who have retired from surveying but wish to remain as Members. Students who have passed a Diploma but do not survey and wish to keep in touch with the Institute. Non surveyors who wish to join the Institute and support its aims.
Affiliate	AffilIIMS	Applicants who are engaging in full time marine surveying but do not qualify as Associate Members.
Graduate	GradIIMS	Have completed an Institute Diploma or Maritime Course at College or a University Degree.
Student	Student	Under training, studying for an Institute Diploma, Maritime Course at College or a University Degree.
Corporate Member	CorpIIMS	Organisations having an interest in Marine Surveying or Marine Consultancy and who encourage and approve of the aims of the Institute.
Allied Organisations	AMSO	Marine Surveying Organisations who are Allied to the Institute and work with the Institute for the benefit of marine surveying.

Chairman's Report on New Zealand Branch

Activities in 2010

By Harry Jorgenson
NZ Branch Chairman

The New Zealand Branch's principal project this year has been to work with the NZ Maritime Safety Authority (Maritime New Zealand) in assisting to raise the standard of small commercial craft surveying in NZ.

The Branch's Cargo and Nautical surveyors Working Group met regularly in the first half of the year until its chairman was obliged to stand down for personal reasons although its members continue to meet informally from time to time.

The Commercial and Pleasure Craft Marine Surveyors Working Group met several times and held and expert witness training session led by Barrister Paul David. Work in the small craft pre-purchase field was a bit slow over winter but has now picked up as people are buying boats.

Organising the Auckland IIMS Seminar to be held on the 10th and 11th March 2011 is progressing smoothly with the program ready for final confirmation.

The NZ IIMS representative enjoyed the opportunity of a visit to the new IIMS office in Portchester where he usefully devoted a couple of days to discussions with Directors and Staff.

Praise for new lake of Constance ferry

Article Courtesy of Maritime Journal

Praise for smooth running and reliability has come from the owners of the classic new €8m Ueberlingen, the longest passenger ferry to serve on the Lake of Constance (Bodensee).

The impressive three deck, 58.2m long ferry went into service as the new flagship of the Bodensee-Schiffsbetriebe recently after completion at the BSB Shipyard with the help of regular Austrian building partners OSWAG Shipyard in Linz.

The keel was laid at OSWAG and the ferry was built there up to deck level before being transported in ten sections by road to the Lake of Constance, which lies on the borders of Germany, Austria and Switzerland.

The sections were welded together in Fussach and towed by tug along the lake to Friedrichshafen. Displacing 480 tons, the ferry has the classical old shape of lake ferries and is the BSB's biggest newbuilding to date. Stadtwerke Konstanz spokeswoman Silke Rockenstein told MJ Ueberlingen had 'behaved very well' since it went into service. She also praised the ship's smooth running and reliability: She said passengers had also commented on the roominess of the 12.2m wide ferry, which draws just 1.7m and carries a maximum 700 passengers. Wide access points and stairways were other features that had impressed, along with three generous decks with both sunny and shaded seat areas.

'All in all a lovely, successful ship', said Ms Rockenstein. Ueberlingen is powered by two Scania diesel engines of Type DI 1652M, rated at 386bhp to provide a service speed of 22km/hr (top speed of 26km/hr) driving via two Schottel rudder propellers of Type STB 330. The owners said the propulsion plant consumed 30% less fuel than their previous lake vessels.

Built of steel and boasting side galleries with all-round panoramic views, the ferry has 250 seats inside, 450 outside and also carries 50 cycles. It has replaced the 75 year old ferry Baden, which will, however, still see service with BSB on special occasions. By Tom Todd.

Reports from Bob Hawkins

MIIMS Aukland New Zealand

Windmill farms

The construction of windmill farms is not new however in more recent years there has been a spectacular growth in this industry and even in New Zealand where we have other natural sources of electrical generation, windmill farms are springing up in many parts of the country (thankfully not yet in the navigable waterways !).

So the shipping of the windmill plant has given us some interesting work in the surveying industry. The ships being used for the transportation of the plant are well-equipped, modern multi-purpose heavy lift types. The turnkey operation certainly requires much co-ordination of the various modes of transport, especially at the port of discharge.

In our case in Auckland over the past few months we have had four shipments all heading to a site on the North Island west coast, near Raglan. Discharge took place using ships gear (in the main), directly to special multi-wheel road transport. Because such large loads can only be transported on designated roads after hours, it was necessary firstly to assemble all the various items on a large section of the quayside set aside for the purpose.

As each shipment arrived it was then necessary to ensure the correct pieces of each windmill tower were forwarded to the site in order. Large mobile cranes assembled on the windmill site, costing many thousand of dollars a day would be used to assemble the pieces (3 tower sections, 2 hub /power units and 3 blades per tower).

As marine surveyors in our case, we were employed by the ship owner to oversee the outturn ex the ship. Some delicate manoeuvring was required by the stevedores, in conjunction with the ship. While the maximum weight of each piece was something like 86 tonne, it still meant careful trimming using ships ballast tanks was required when lowering the loads onto the trailers. Fortunately there was very few incidents of damage and the weather was generally kind to us as of course with the windmill blades being long and relatively light, any breeze over about 10/12 kts would have meant a halt to the operation.

Some delicate manouvering was required by the stevedores, in conjunction with the ship

Copra trader on fire Alotau, PNG

The news of spectacular incidents at sea is not confined to large container ship cargoes. The photos show the type of problems sailors dealt with in days long past when cargoes were visible and while spontaneous combustion was an ever present danger, fortunately an incident such as this one at the PNG port of Alotau in November, 2010 is not an every-day event.

The fire was initially being dealt with by shore-based fire equipment of dubious efficiency and soon got to the stage whereby it could no longer be contained and the ship was towed out to an anchorage to allow the fire to burn 'uncontrolled' !

I cannot advise the outcome of this incident but no doubt the tropical heat had something to do with this exposed pile of copra sacks resulting in an explosive case of spontaneous combustion.

copra trader fire in alotau november 2010

Dynamic Positioning

In the beginning

In the early1960's, oil well drilling moved into ever deeper water off the US and Mexican coast. Jackup's were depth limited; rigs moored with anchors were in use. A drill ship with 4 steerable propellers, operated manually, successfully drilled a well in deep water, just under 1000 metres. Soon after, the drill ship Eureka came into operation, with an automated position system using a taut wire as a position reference. It was the first DP drill ship, still constrained by water depth, due to the taut wire, but the technology was born.

Back to basics

DP vessels maintain position with computers. These computers model the vessel dynamics, simulating its responses to external forces from wind, current and wave action, along with internal forces from thrusters and propellers. Deviations from the required position and heading of the vessel are detected by the position reference systems and gyro compass. The calculated position and heading is compared to the measured position and heading and the model is continuously updated with the difference information. This information is then processed and commands are sent to the vessel's propulsion system, to counteract the deviations from the required position and heading.

An error compensation force is calculated over a period of time, which is added to the modeled force, to produce the total external force. This is to counteract forces that cannot be measured directly, mainly current and wave action. This additional force is displayed on the DP console

as current, it generally being the largest component.

A sudden change in the wind speed or direction can be measured as it happens and to avoid the vessel moving out of position due to wind gusts, an immediate compensating thrust is applied by the system.

Sum of its parts

The DP system comprises most of the, none project parts, of the vessel. Power generation and distribution, fuel, water cooling systems, propulsion, position references (one of a variety of names but the most descriptive), sensors measuring heading, pitch, roll and wind speed, the DP computers and the DPO consol. Then there is compressed air and direct current for controlling various machinery, switchboards etc.

Measuring the position

Various methods of position measurement are available. The most common being use of the GPS satellite system. This is corrected to give a more accurate position measurement, the corrections being sent to the vessel generally by satellite or terrestrial radio. This system has the benefit of being an absolute reference, ie. the position on the earth is indicated. Other systems include hydroacoustics – using one or more transponders on the seabed and interrogating them with a transducer, which is lowered through the bottom of the hull. The taut wire system, which is a thin wire attached to a clump weight lowered to the seabed, kept tight and the angle of the wire measured, enabling a position to be calculated relative to the weight. The laser system, of which there are several variants but essentially, they use reflector, sited on a fixed structure such as an oil platform, with a laser mounted on the vessel, enabling range and relative bearing to be measured with respect to the target. There are other systems but these are the most common.

Redundancy

According to IMO, there are 3 main classifications of DP vessels, 1,2 and 3, although some classification societies are describing more sub classes. Classes 2 and 3 have redundant DP systems, which means no single failure of an active component can result in a position loss (or failure of an active or static component for class 3 vessels). A single failure could include generator, pump, thruster, or an entire switchboard failure. The fuel system is split into 2, as is the cooling system. The DP computers and consoles are also duplicated, along with their power supplies.

Surveying DP vessels

When a DP vessel is built, converted or has a large upgrade, the FMEA (failure mode effect and analysis) has to be written or updated. This starts with the drawings of the electrical systems, fuel and cooling systems and many others. If they are available. If they aren't it starts with many days on the vessel in a boiler suit, tracking down all the various systems. The redundancy concept has to be proved to work, through all the sub systems, and a description written. Every breaker on every distribution board is identified. Every valve in the fuel system is taken into consideration and a fuel set up plan for DP operations is developed. The cooling system goes through a similar analysis. When the FMEA is completed, a proving trial is developed, testing all the vessel systems for redundancy. This is then used on the vessel, at sea, to prove the FMEA is accurate and the vessel has been built, or converted, as the drawings describe.

Existing vessels have an annual DP trial. This is written specifically for the vessel and includes many of the tests from the DP proving trial. It also includes checking maintenance of DP related equipment, documentation, incidents since the previous trial, checking the status of recommendations made during the previous trial, DPO's qualifications and many other things.

DP surveyors have an interesting job. They have to look at the vessel as a whole. Be comfortable in the engine room and bridge. Say "yes really" to chief engineers who ask if you actually want to check every fuel valve on the ship before the trials start. Have good knees – there is a great deal of commuting between engine control room and bridge. Some larger vessels have lifts – I hadn't previously realised how good they are! Occasionally, ship operators put extra officers on board, as it's a great learning time for them. They see failures that (usually) are only seen during the trials. It's an especially good learning time for DPO's, identifying which thruster has frozen, or runaway and deciding how to identify the problem and best deal with it, all in just a few seconds (after all, the vessel may be just a few metres from a billion dollar oil platform – with divers on the seabed). When the crew are keen to learn, the debates can be extended, every scenario explored, diagrams drawn, they see the problem on their own vessel and become better equipped to deal with future situation that may develop. The job is interesting enough anyway but sometimes it's a great job, when you leave knowing you've made a real difference to the DP system, which now includes the operators.

Marine Expert Witnesses and Evidence

By Mr Lindsay Gordon of Gordon Marine Ltd, London

1. Introduction

1. Although I have been giving expert evidence for over 30 years, the only conclusion I draw is that it does not get easier. A reason for this must be that the expert gets older and counsel younger! Unless you are fortunate enough to possess a photographic memory recalling what is in the bundles when being cross-examined, fades with age. However, this is offset, or should be offset by experience.

2. This brief paper passes on some points worth remembering if an expert is to give evidence.

2. Preparation

2.1 Before even drafting his report, an expert should ask himself or herself – is this really my subject? Are the solicitor's instructions clear and ones I am comfortable in addressing. If not, then first tell your instructing solicitor where you may be uncomfortable. If any doubt, stop now. Giving evidence on a subject on which you are uncomfortable is a grave error.

2.2 Once over the first hurdle, complying with and understanding your instructions, an expert needs to read – and read again – the Civil Procedure Rules Part 35 (CPR 35). The Rules set out in a clear manner what the duties of an expert are.

2.3 An expert's report should follow the general lines:-

- Ensure that instructions from your solicitor are followed, making clear areas which your report does not address and say this in your report.
- Say in your report if there are any areas which the report does not address and why this is so.
- Attach a c.v. - if you can keep this to one page, so much the better. A lengthy c.v. is not attractive to a reader.
- Try and keep your report concise. Lengthy reports are not attractive to a reader. A judge recently said of experts' reports that they should not be more than 10 pages. While this was related to a particular case, the general message here is – try and be concise. A useful guide is to read a judgment. Invariably, they are masterful in being concise and drafted in plain sound English.
- Many experts are specialists in complex subjects. If you can manage to make your report simple to understand then that is a bonus, because a judge or arbitrator will grasp what you are saying.
- If you change your mind after a report has been exchanged, tell your instructing solicitors and explain why you have changed your mind in a supplementary report. Of course, if the change of mind occurs while giving evidence, say so. Do not try and muddle your way through.
- If a judge or arbitrator sets out specific questions for an expert to address in their report, make sure you do so even if you would prefer not to deal with some of the points.
- Over the years I have tried to annex less rather than more appendices to my reports. While an article may seem to assist your view, the complete article should be annexed and this document will be scrutinized by opposing counsel and you will be cross examined on the whole article. Appendices which contain factual information are usually 'safe'.

3. Giving Evidence

- If you don't understand the question, say so. I have always found it a bit of a nightmare when counsel starts a question along these lines – 'Now I know this is not your case, but supposing for a moment it was not the case that ….'. Such questions are convoluted and hypothetical. The best thing to do is approach the judge or arbitrator and say you do not understand the question.
- Listen carefully to the question.
- In essence, there are five answers to a question. These are:-
  - Yes
  - Yes, but
  - No
  - No, but
  - Don't know.

It is far better to be asked by counsel – 'Would you mind expanding on your answer', than go rambling on.

- Many experts are uncomfortable because they do not understand the system. Take time out to attend an arbitration or court hearing particularly if you have not given evidence before.
- Do not allow yourself to be hurried in answering a question.
- If counsel interrupts your answer during cross examination then ask the judge or arbitrator if you can finish answering the question.
- Try not to speculate or guess when answering a question. If you don't know or don't remember, say so. Giving evidence should not be a test of memory as much as of your knowledge. An expert should not be afraid to ask to refer to his notes or other documents to refresh their memory. Remember of course that if you refer to notes these will be discloseable.
- Do not attempt to engage in a battle of wits or 'play games' with counsel, the court or arbitrator panel. Do not be argumentative. Try and co-operate with everyone. This will not be seen as a sign of weakness – to the contrary. A reluctant or recalcitrant witness is of little or no value, even to their own side.
- When giving evidence, try and look at the judge or arbitrators – not the barrister who is asking the questions. It is also a good idea to try and speak slowly and watch and see if a judge or arbitrator is writing that he or they can keep up with your answer. If there is a transcript avoid gestures, nodding of head etc. which cannot be recorded for future review.
- If you become confused, say so – it will be obvious to everyone there anyway. Take your time; collect your thoughts; restart and correct any errors or confusion.
- Do not refer to conversations you may have had with counsel or instructing solicitors. These conversations may be privileged. Of course, you may confirm you have discussed the case with counsel but not describe such discussions.
- Never make frivolous remarks even relating to yourself.
- Never allow yourself to become annoyed or irritated – keep cool!
- Once you are engaged in a case be careful not to discuss the case with your instructing solicitor or counsel in any public area.
- Finally, if you can remember a few of these points when actually giving evidence you have done well. It is always worth going through your own check list before giving evidence.

4. Experience of Other Countries

- Experts based in this country may find that they are called to give evidence in another country. In this case it is of course essential to make yourself familiar with the duties of an expert in that country.

I have been involved with cases as an expert in various countries including USA, Greece, Sweden, Republic of Ireland, South Africa, Belgium and the Netherlands. While there is inevitably a stress factor giving evidence in any country, I can say that the most searching and demanding system is, in my opinion to be found in this country – be it High Court or arbitration. I think the standard of preparation for a case by solicitors is high and I am constantly impressed by the quality of barristers in this country.

5. Conclusions

In summary:-

- Follow instructions from your solicitors or a judge or arbitrator.
- Follow the requirements of an expert as set out in the CPR35.
- Keep your report concise and clear.
- Answer the question, even if you do not like it.
- Do not answer the question if you do not understand it.
- Do not be argumentative. Conceding a point is not a sign of weakness – to the contrary.
- Try and co-operate with everyone.

The Love Love was built to look as if it is sinking

French artist Julien Berthier has designed a fully functional boat to look as if it is sinking. The 6.5m (21ft) yacht was cut in half with a new keel and motor added so it remains in the sinking position while being fully functional. He describes it as "the permanent and mobile image of a wrecked ship that has become a functional and safe leisure object."

Berthier has taken the boat (or should I say half-a-boat) across the English Channel to London and has toured it around Europe , getting plenty of offers of assistance from unwitting good Samaritans, who would presumably be either very annoyed or rather bemused by the contraption.

The designer and artist designed and built the floating installation in 2007. He named his creation Love Love.

Mentoring = "Giver's Gain"

By Capt. Zarir Irani, IIMS Reg.
Director – Middle East
MD – Constellation Marine Services
LLC - Dubai, Abu Dhabi & Fujairah

One of the hot topics of discussion at a recent IIMS conference were initiated by the words "endangered species" used to describe a professional experienced marine Surveyor.

This regrettably is echoed by the statistics gathered by the IIMS of estimating the average age of a practicing marine surveyor to be between 55 to 60 years. The difficult question of "why so ?" may have some ugly answers, best left at that. How can we undo this situation? Is the next generation of Marine Surveyors going to come from the sea, or are they going to be shore based, with little or no seagoing experience? Some think it's the latter.

The Mentors perspective

What happened to the age old wisdom of "things that you do, come back to you" or the modern day BNI mantra of "Giver's Gain" ? I personally believe "mentoring" is an age old tried, tested and acknowledged means of learning for both parties involved. More so for the mentor, as she/he is exposed to some challenging queries and a fresh eye perspective, which he may be deprived of being a lone ranger.

The question is, are you willing to tag along a junior surveyor (or a wannabe) who may one day learn the tricks and possibly argue his stand with you, become a competitor or join competitor camp, Or ask you some difficult questions at the wrong time to make you stutter and stumble or waste your time. It's a given that one or all of the above may one day come true. The beauty in this professional game is to recognize the fact that you still stand to gain by mentoring. It's about sense of pride, the satisfaction of giving, and above all being humbled that there is another perspective which inevitable comes to surface while mentoring. Not to forget that a mentor avails the ultimate benefit of having a lifelong fan club member and respect of his mentee. If the Mentee is worth her/his salt, a possible recruitment opportunity and thus answers the awkwardness of succession planning.

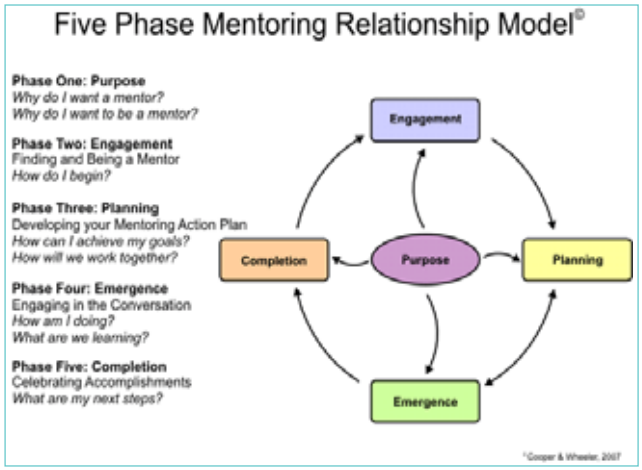
Mentee's perspective

The mentee stands to get a ray of hope in the practical learning, which unfortunately is a huge entry barrier in the surveying industry. The IIMS diploma students invariably come up to the lock gates (read as "road block" to a layman) when they are left fending for Mentors. A department head of a 12 students group recently in the UAE capital asked us if we could arrange an on field training for some of the important modules of the IIMS diploma if they sign up, we affirmed. (NB: I am proud to mention here that the IIMS working committee members here in UAE willingly volunteered to give their time and effort for the cause and contribute part proceeds to the UAE branch.)

Another mentee this week wrote to us in his testimonial:
" The practical aspect of surveying is essential to graduates as myself who need an experienced Surveyor to mentor us and essentially show us how it is done. Being a mentee I have benefitted from observing professionals in the field and seeing how they handle themselves and what is expected from them by the client. Having a mentor who can give great pointers as to what to look for in certain surveys and what to watch out for helps us mentees avoid falling into common pot holes and other more obvious errors. Apart from having someone readily on hand

to answer questions and shadow during surveys it was also a great confidence booster for me to see how it is done rather than just read about it as a student can sometimes be overwhelmed by all the technical information delivered in modules and learning packages.'

It is obvious that mentees need us to hold their hands; they want to be confident new comers to this fraternity. If we avoid them they will still be there and possibly undercut due to their own assumptions, insecurities and shortcomings. The ill informed Insurance industry will seek to appoint motor insurance surveyors to inspect Marine cargo and issue towage approvals of project load outs (as inferred by an attendee at a recent IIMS conference).



Concluding perspective

By actively mentoring let's join hands and raise the bar of professionalism. If we have a formal training ground and stick to professional Codes of conduct which we pass on in many ways to our mentees we shall expect the bar to be risen. It will make it easy for our clients to differentiate between the pretenders and "the professionals". We shall not be referring our kind as "endangered". A note worthy comparison can be drawn from other professionals in Law, medicine and Science. The years of apprenticeship and mentoring they have to compulsorily go through.

A thought to ponder upon: If IIMS member listing on the website can have a running tab against each member's name who registers her/himself as an available mentor in their region, the new comers and the students can easily identify and approach them to seek help as their Mentee. Make it transparent, and support the cause. Let's mentor and learn.

This article is dedicated to my mentor Captain Daraius Rustom Antia, a selfless giver, a practicing professional with over 25 years of surveying experience.

The author of this article is:

1 an active promoter of the IIMS diploma in Middle east for the past 2 years.
2 In the Education subcommittee of the International Chartered shipbrokers (ICS) UAE branch and actively lectures at their training sessions on Marine Insurance and claims and liner trade.
3 A Participant of the Action Learning Program (ALP) of SPJCM, Dubai.

ALP is a unique, creative and concentrated research initiative under the Global MBA program, where student research teams are deployed with a few reputed organizations in UAE. These teams work competitively on the themes of Growth, Innovation and Competitive advantage as per the 'Business Challenge' defined by each organization.

WHY BE A GOOD MENTOR?

The primary motivation to be a mentor was well understood by Homer: the natural human desire to share knowledge and experience. Some other reasons for being a good mentor:

Achieve satisfaction. For some mentors, having a student succeed and eventually become a friend and colleague is their greatest joy.

Attract good students. The best mentors are most likely to be able to recruit—and keep—students of high caliber who can help produce better research, papers, and grant proposals.

Stay on top of your field. There is no better way to keep sharp professionally than to coach junior colleagues.

Develop your professional network. In making contacts for students, you strengthen your own contacts and make new ones.

Extend your contribution. The results of good mentoring live after you, as former students continue to contribute even after you have retired.

FACTS

Member's Forum

Mumbai Conference

This is just a few words to say that the Conference in Mumbai this year took the Conference to a New Level of Professional Quality and that the organising TEAM are to be applauded for their effort and superb result of that effort at all levels.

Any Conference Organisation is not an easy one and when it is all voluntary effort which result what was the back drop with the superb attendance to hear industry leaders in both P&I, Adjustment, Legal as well as Professional Attitudes with the chair of each session being humourous and enlightening, you have the makings of a superb meeting which those who missed it will regret.

It was good all round in the Ramada and leaves the Conferences to follow as having a big paid of boots to fill.

Bali next year is the venue and with hand on heart as well as the hopes that the International Members of the IIMS support the venue, I dare say I speak for the silent majority in looking forward to the Mumbai bench mark being maintained and perhaps being surpassed, though that will take some doing.

Yes a very good and enjoyable Conference and thanks to all those who put in the long hours and effort to make it a success and take the Indian Chapter of the IIMS, which was officially inaugurated after the Conference, forward with confidence for all future IIMS matters in India.

Thanks and see you all in Bali 2011.
Will Henderson

Tony McGrails article re incompetent surveyors

First of all may I congratulate you on an excellent publication which I look forward to reading when it comes in, full of articles and many different topics around the world.

I was slightly dismayed as a member surveyor working in the small craft industry to read Tony's article. I have to say I didn't think this was particularly helpful to the profession at large and perhaps it would have been better if the individual had been taken aside and the matter of his competency or otherwise discussed in house. There are difficulties where a report is handed out to a third party, the third party does not know the instructions given to the surveyor or the terms and conditions of his employment.

I am regularly asked if I would carry out a sellers survey which I nearly always refuse to do. Nobody in their right mind would buy a second hand boat particularly an older boat without having their own survey undertaken where they are able to instruct the surveyor to their particular requirements.

I have read the article several times and while I know exactly what Tony means when he is talking about the competency or otherwise of this surveyor who I understand is a member of IIMS, perhaps the fault does not lie totally with the surveyor.

Many many years ago when I started out it was almost mandatory that a surveyor would have a degree preferably with honours in either marine engineering or in naval architecture.

After serving an apprenticeship and proving that they were worthy the individual could apply for chartered engineer status and if he managed to pass the exams there then realistically he would be able to practice ... account.

There was no question at that time of entering this profession with a diploma and being fit to practice that would be seen then and I have to say now by those of us who have slightly better qualifications as being very much the minimum requirement before proceeding to further supervised education.

While I agree with Tonys comments I feel that it would be worthwhile pointing out that the professional standing of the marine surveyor particularly in the small craft sector has been gradually eroded by the introduction of diploma courses where I'm sure there are people who attend "schools for fools" and scrape a pass and suddenly become apparently competent to pass judgement in a professional way.

My own feeling is that the introduction of these diploma courses has had a detrimental effect to the profession generally and rather than picking on one poor individual there should be a general lifting of the bar to a higher standard both academically and practically possibly in the form of a sandwich course if that's easier to administer and only then will the marine surveyor regain the previous position in the eyes of the public.

Maybe IIMS could help.
James W F McLlraith
for Survey One

Visitors to the IIMS Head office since the Last Report

Name	Company	Name	Company
Phillip Anderson	National Cargo Bureau Ltd, New York	J Raey	Trio Systems
Steve Frankland	Maritime Survey	D Winter	FBE
C Simpson	Hampshire Graphics	Adrian Matthews	Silverwood Yacht Services
Bill Crowson	Hampshire Graphics	Julie Sharp	Fish HR
Adam Judd	Apollo	Peter Morgan	IIMS Board
Dan Musty	Compulsive Films	Chris Spencer	IIMS Board
Paul Gonella	Compulsive Films	John Lillie	IIMS Board
Peter Broad	BMT	Colin South	IIMS Board
Barry Thompson	IIMS, New Zealand	Allen Brink	IIMS Board
Dan Musty	Compulsive Films	John Noble	IIMS Board
Paul Gonella	Compulsive Films	Adam Judd	Apollo
Jason Rudd	Port of London Authority	David Pestridge	White Hart Yacht Surveying
J Knight	Clipper	Peter Broad	BMT
Lachlan Mackenzie	BC, Canada	Roby Scalvini	Palma de Mallorca
David Winter	FBE	Felix Evans	Pantaenius UK
Danielle Crothers	Portchester	Felix Bussmann	Palma de Mallorca
Hugh Grath	Portchester	Sean Murphy	Eurosurv International
Jason Rudd	P.L.A	Martin Pittilo	Maple Marine
Lachlan Mackenzie	BC, Canada	John Excell	IIMS Member
J Knight	Clipper Ventures	H Morgan-Harris	Hamble UK, SMH Ltd
Jason Rudd	P.L.A	Hugo du Plessis	IIMS member
Lachlan Mackenzie	Canada	M Dew	MDDM Ltd
Chris Trainor	Informa	D Saunders	IIMS member
Adam Judd	Apollo	J McIraith	Survey One
J Tomblin	J.T. Marine	Nick Mallalieu	Redhill Survey
P Rickett	BSS	Mike Wall	Kiwi Maritime Consultants Ltd
L Bodmer	Gnewmarket	Peter Broad	BMT
W Copeland	Copeland Yacht Surveys	Adam Judd	Apollo
P A House	Copeland Yacht Surveys	Ros Clarke	Bishops Printers

New Members since the last Report

John T McRae	Graduate	Australia
James Gardiner	Graduate	Australia
Gordon Panton	Graduate	Australia
Michael Vermeulen	Graduate	Australia
Mark Robertson	Graduate	Australia
Nick Mallalieu	Graduate	UK
Philip Cooper	Graduate	UK
Paul Hutley	Graduate	UK
David Ehnes	Graduate	BWI
Philip Alberry	Graduate	UK
Craig Ritchie	Graduate	UK
Graeme Preston	Graduate	Germany
Dale Barker	Graduate	UK
Christine Davis	Graduate	UK
Nicholas Queen	Technician	UK
Scott Smyth	Technician	UK
Mohamed Ashraff	Associate	UAE
Alexander Chen	Full	China
Trans-Service Maritime Agency	Corporate Supporting	Ukraine
Stephen Powell	Supporting (SIT)	UK
Jeroen Ebbeling	Full	Netherlands
Kamran Sultan	Full	Australia
Umeshchandra Tank	Full	India
Marino Soric	Associate	Croatia
Cihan Gurbuz	Associate	Turkey
Yannis Stratis	Full	Greece
Trevor I'Anson	Full	UK
Prosper Esin	Full	UK
Kelly Tolhurst	Affiliate	UK
Gary Webster	Associate	Spain
David Pestridge	Affiliate	UK