



RINA AFFAIRS

JAN/FEB 2011

The Newsletter of the Royal Institution of the Naval Architects

CHIEF EXECUTIVE'S COLUMN



Last year, the Institution celebrated the 150th anniversary of the founding of the Institution of Naval Architects in 1860. At the Annual Dinner, the President highlighted some of the changes to the Institution which had occurred over that time. He asked whether those 19 members who founded the Institution in 1860 would recognise the Institution in 2010, and whether they would approve of the significant contribution which the Institution has made to that development of the naval architecture profession and the global maritime industry over the intervening 150 years.

Whilst publishing the journals in the Chinese language and its pages on Facebook may have confounded them, I am nonetheless sure they would be proud of the Institution they founded.

But what Institution will those members who joined in 2010 look back on when they receive their 50 Year Certificates in 2060 and will they also be proud of the Institution? I hope they will recognise an Institution that continues to “promote and facilitate the exchange and discussion of technical and scientific information” and “thereby improve ship design”, just as it did in 1860 and 2010, through its publications and conferences. Such information and the means by which it is published will continue to reflect developments in both the maritime industry and information technology. I am sure it will be an Institution which continues to contribute to those development in the maritime industry, both collectively as an organisation and through the individual efforts of its members.

I hope they will recognise an Institution which continues to be a truly international in all its activities, reflecting the global nature of the maritime industry. I hope they will look back on a continuing expansion in all its activities, whether it be in its membership, its Divisions, Branches and Sections, its events and its publications or its contribution to improving safety at sea and the protection of the maritime environment.

But most of all, I hope they will recognise an Institution which has continued to recognise and respond to the professional needs of its members – those who are involved in the design, construction and maintenance of maritime vessels and structures – whether individuals or organisations. It will be as self evident in 2060 as it was in 1860 and 2010 that the Institution is its members and it is as much they as the maritime industry which shape the Institution. And how can today's members help to shape the Institution of the future? There are many ways, including support of the Institution's local activities, but I would highlight one key contribution which they can make and that is to increasing membership. I am certain that there are many members who know of others who are involved in the design, construction and maintenance of maritime vessels and structures, but who do not enjoy the benefits of membership which belonging to a leading and internationally respected professional institution brings. Just give me a name and an email address, and I will do the rest!

Chief Executive

IN THIS ISSUE

2011 Membership Fees

Members are reminded that 2011 Membership and Registration Fees were due on 31 Jan 2011.

2011 Events programme

The full 2011 Events programme is now published. 17 events will be held in Australia, Italy, India, Norway, Greece and UK.

Bookshop Bargains

This month's bargains are the Proceedings of the highly successful conferences on “Human Factors in Ship Design and Construction”, held in 2000, 2005, 2007 and 2009, available in printed or CDROM format.

New in the Bookshop

New publications include the Proceedings of the “International Conference on Systems Engineering in Ship and Offshore Design” and the “William Froud Conference – Developments in Theoretical & Applied Hydrodynamics”.

Travel Insurance

Genesis Insurance can provide travel insurance to Members and families with no exclusion for age or and will cover individuals or existing health.

Civil Procedure Rules Certificate

Bond Solon has developed a web learning with Lord Woolf and leading litigators to enable experts to evidence their understanding and compliance of this recent requirement. Members of the Institution will receive a discount on the cost of the Certificate.

Naval Architectural Heritage

UNESCO has selected the “Watertight-Bulkhead Technology of Chinese Junks” as an item of the world's intangible cultural heritage.

2010 President's Invitation Lecture

Over 140 members and guests defied the weather and student demonstrations in London to hear Graham Westgarth – Technical Director of Teekay Shipping - present the 2010 President's Invitation Lecture – “Operation into Design for the 21st Century”. This was the largest number ever to have attended a President's Invitation Lecture – a tribute to the speaker.

In his Lecture, Graham gave a brief overview of Teekay's US\$3.5 billion newbuild program over the last decade outlining the types of vessels built (Aframax, Suezmax, LNG, Shuttle), the shipyards used and experiences during the process. He then focussed on the operational performance once in service including the impact and consequences of design decisions using real case studies as illustrative examples.

He then turned to what is really important to the owner and customers, describing how Teekay uses certain tools/technology to monitor and improve performance with the aim of demonstrating that as the industry comes under greater scrutiny then it needs to be continually refining its approach to how risk is managed.

Finally he described a number of innovative design ideas which Teekay has developed in-house over the years which challenged some of our conventional approaches.

The President's Invitation Lecture was again sponsored by ABS, whose support for this and other Institution activities is



Members and guests at the 2010 President's Invitation Lecture



2010 President's Invitation Lecture Dinner

much appreciated.

Photographs taken at the Lecture can

be viewed at <http://picasaweb.google.com/RINAPhotographs>

2011 ANNUAL DINNER

13 April 2011, London

The 2011 Annual Dinner of the Institution will once again be held at the Lancaster London Hotel, when the principal speakers will be Alan Johnston CBE, Managing Director of BAE Systems Surface Ships Ltd., and the Revd Tom Heffer, Secretary General of the Mission to Seafarers.

Corporate tables are available, along with private function suites for pre-dinner and after-dinner receptions. Individuals will also be most welcome at the dinner. For further details, contact Sally Charity at scharity@rina.org.uk or 020 7235 4622.

IMO Committee

Operations in Polar Waters

In its capacity as an NGO, the Institution is involved in the development of the IMO Mandatory Code For Ships Operating In Polar Waters which will involve much of the Institution's recent work at IMO, e.g. FSA hazard I/D and consequential effects, GBS, Human Element, Damage Stability, Water-Tight Doors, Floodable Length, Environmental Protection, Emergency Response for damaged ships, etc.

At its recent meeting, the IMO Committee held a seminar on 'Hazards to Ships in Polar Waters' to update members

on that subject. Presentations were given by Dr John Shears of the British Antarctic Survey on "Experience and Performance of the vessels James Clark Ross and the Ernest Shackleton in Ice" and Captain Paresh Acharya on "Experience and Operational Performance of BP Ships in Polar Waters". Also, in attendance was Dr Dougal Goodman FREng CEO of The Foundation for Science and Technology (ex BP and Scott Polar Research Institute, Cambridge).

The presentations may be viewed online at www.rina.org.uk/c2/uploads/polaroperationsbas.pdf and www.rina.org.uk/c2/uploads/polaroperationsbp.pdf

RRS *Ernest Shackleton*.



TRAVEL INSURANCE



Genesis Insurance can provide travel insurance to Members and families with no exclusion for age or and will cover individuals or existing health.

The Institution does not endorse this insurance and members are advised to always seek the most appropriate insurance. However, the Institution will receive a commission on each sale and renewal.

For details and a quotation, visit www.genesischoice.co.uk/rina

2011 ANNUAL MEMBERSHIP FEES

Members are reminded that their 2011 Membership and EC Registration fees (if appropriate) were due on 1 January 2011. Members who have not yet done so are requested to forward their payment as soon as possible, using one of the payment methods shown on the Notice. Where there is no change to the amount shown on the Notice, payment may be made online.

Members who have any queries about their Membership or Registration fees, or who have not yet received their 2011 Annual Fees Notice are requested to contact the Accounts Department at accounts@rina.org.uk or by telephone at +44 (0)20 7235 4622.

William Froude 1810 - 2010

On 28 November, a wreath was laid on behalf of the Institution by Dr Brian Gowans FRINA at the grave of William Froude in Simon's Town South Africa, to celebrate the 200th anniversary of his birth. Other wreaths were laid by representatives of the city of Cape Town and The South African Institution of Marine Engineers and Naval Architects. Before the wreath laying, a summary of the life and works of William Froude was given by Professor J. Dommisse, Chairman of the Simon's Town Historical Society.

BOOKSHOP BARGAINS

Each month, the RINA Bookshop offers selected publications at up to 70% discount on the normal price. This month's bargains are the Proceedings of the highly successful conferences on Human Factors in Ship Design and Construction, held in 2000, 2005, 2007 and 2009, available in printed or CDROM format. Click www.rina.org.uk/Bookshop for details.

The GreenShip Technology Book

Existing Technology by the Marine Equipment Industry: A contribution to the reduction of the environmental impact of shipping

This 'book' was produced by the EMEC Working Group for Climate Change and Environment with the aim of showing what the industry can deliver in terms of technology to benefit the environmental impact of ships.

The first edition of the GreenShip Technology Book was published in December 2009. Due to its success, a reprinted edition on recycled paper has been published in February 2010. On the basis of the comments received by stakeholders, a **second edition** of the GreenShip Technology Book is expected to be issued end of April 2010.

A PDF version of the GreenShip Technology Book is **downloadable** for free at www.emec.eu

Revision of the "International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk".

A note from the General Manager of the Society of International Gas Tanker and Terminal Operators Ltd (SIGTTO).

At MSC 83 (2007), the UK administration introduced a joint paper proposing the revision of the "International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk" - the IGC Code. This was placed on to the BLG work programme with the understanding that liquefied gas shipping industry would prepare a revised Code for eventual review

by IMO. An industry-wide steering group was established under the chairmanship of David Macrae of UK MCA in early 2008 to oversee the process. 10 working groups were created to conduct the detailed review work. The overall activities were co-ordinated by the Society of International Gas Tanker and Terminal Operators Ltd. (SIGTTO) who provided general secretarial support to all the groups.

The revised Code will be introduced to BLG 15 in the week beginning 7th February.

Visit www.rina.org.uk/c2/uploads/igccode.pdf for full note

2011 Sustainable Shipping Awards

The Institution will again be supporting the 2011 Sustainable Shipping Awards being held in London on 7th July 2011.

Since inaugural ceremony in 2009, the awards are now established as a meaningful mark of recognition within the industry. The work that is occurring to change and improve the environmental record of shipping increasingly grows greater and more

innovative by the year and these awards are at the forefront of recognizing the diversity of these contributions as well as highlighting to the wider media and business communities the positive steps that shipping is taking.

Members of the Institution attending the Awards will receive a 20% discount.

For further details, click on www.sustainableshipping.com/awards2011

www.rina.org.uk

Recent visitors to the Institution's website at www.rina.org.uk will have seen that the website has had a 'make-over'. The site still contains the same information about the Institution and its activities, but in addition to the new look, navigation

about the site is now easier and faster.

I would welcome members' comments on the new look website, including any of the inevitable glitches which have been missed, such as broken URLs etc.

Chief Executive

2011 EVENTS PROGRAMME

Design And Operation Of Passenger Ships

23-24 February 2011, London, UK
<http://www.rina.org.uk/passengerships>

International Conference On Innovation In High Speed Marine Vessels

2-3 March 2011, Fremantle, Australia
<http://www.rina.org.uk/highspeedmarinevessels2011>

Developments In Marine CFD

22-23 March 2011, London, UK
<http://www.rina.org.uk/marinecf2010>

Managing Reliability And Maintainability In The Maritime Industry

7 April 2011, London, UK
<http://www.rina.org.uk/ReliabilityandMaintainability>

Design, Construction & Operation Of Super & Mega Yachts

5-6 May 2011, Genoa, Italy
<http://www.rina.org.uk/superandmegayachts2011>

Basic Drydocktraining Course

10-13 May 2011, London, UK
<http://www.rina.org.uk/basicdrydock2011>

Ship Manoeuvring In Shallow And Confined Waters

18-20 May 2011, Trondheim, Norway
<http://www.rina.org.uk/ShipManoeuvring2011>

High Speed Marine Vessels

26-27 May 2011, Naples, Italy
<http://www.rina.org.uk/HSMV2011>

Design & Operation Of Tankers

8-9 June 2011, Athens, Greece
<http://www.rina.org.uk/tankers2011>

Warship 2011: Naval Submarines and UUVs

29-30 June 2011, Bath, UK
<http://www.rina.org.uk/warship2011>

Hong Kong Joint Branch

Joint 2010 Annual Ball

The Hong Kong Joint Branch of The Royal Institution of Naval Architects and The Institute of Marine Engineering, Science and Technology with The Hong Kong Institute of Marine Technology jointly organized the 2010 Annual Ball on the 26 November 2010 at the Grand Ballroom of Kowloon Shangri-La Hotel, Tsimshatsui in Hong Kong.

This year, we had a record high of 29 tables with VIP guests from different sectors including the delegate from Guangdong SNAME. Besides formal speeches by Guest of Honour – Mr. Kenneth Koo – Chairman of HKSOA as well as by both chairmen from HKJB

and HKIMT of Ir Dr Tsui and Ir Dr Nelson Yu respectively, singing, dancing and a lucky draw were also arranged.

Technical Meeting

Professor Choo Yoo Sang delivered a talk on “Installation Engineering of Offshore Structural Systems” at a joint meeting of the HKJB and the HKIMT on 13 December 2010.

In his talk Professor Choo emphasized the importance of planning as well as the consideration of the configuration of the lifting structure, the availability of plant and equipment to be used as well as the environmental situation before actually lifting the heavy structure. When employing more than one piece of lifting equipment to be used, special care has to be taken, such as how to communicate and synchronize the whole lifting procedure. He also stressed the importance of checking the C.G. and the wiring system design in order to achieve a balanced lifting.

During the discussion, Professor Choo emphasized that young engineers should think of the real situation before they use computer programmes to assist calculations. They should not rely on a computer to produce the results without a good understanding of the engineering principles. He recognized that young engineers are computer savvy, but felt that they needed time to develop their engineering feel.

Members of the HKJB.



Chairman HKJB – Dr. S.Y. Tsui



Southern Joint Branch

Annual Dinner

The 2010 Annual Dinner of the Southern Joint Branch of RINA & IMarEST was held at the De Vere Grand harbour Hotel in Southampton. 176 members and their guests attended. Mr. Vaughan Pomeroy, the Guest Speaker, gave an informative and entertaining talk. Several RINA and IMarEST members received their 45-year Long Service Certificates. Southern Joint Branch prizes were awarded to top students and engineers from Southampton and Southampton Solent Universities and HMS Sultan.

See www.southernjointbranch.org.uk for details.

Chief Executive visits Bangladesh Branch

During a visit to the Institution's newest branch, the Chief Executive met with members of the Bangladesh Branch Committee. During the meeting, he was presented with a plaque by the Chairman of the Bangladesh Branch, Dr A Bari, in appreciation of his efforts in forming the branch. Earlier in the day, the Chief Executive had visited Ananda Shipyard and Slipways as the guest of Dr Bari, Chairman of the Ananda Group. During the visit, he met with senior management and naval architects, and later gave a press interview in which he described how the Bangladesh Branch would support and benefit the Bangladesh maritime industry.

Whilst in Bangladesh, the Chief Executive was a guest of the organisers of the MARTEC 2010 conference, where he gave an opening address and chaired the conference.



The Chief Executive meets members of the Bangladesh Branch Committee.



Dr A Bari, Chairman of the Bangladesh Branch and Mr Trevor Blakeley, Chief Executive.

Thoughts for the month

No man will be a sailor who has contrivance enough to get himself into jail; for being in a ship is being in a jail, with the chance of being drowned ... A man in jail has more room, better food, and commonly better company.

Samuel Johnson, 1759

He who loves practice without theory is like the sailor who boards ship without a rudder and compass and never knows where he may cast.

Leonardo da Vinci

MANDATORY REQUIREMENT FOR ALL EXPERT WITNESSES

Since October 2009 all civil expert witnesses at UK courts, regardless of nationality, are required to be aware of the Civil Procedure Rules, Practice Direction 35, the Protocol for the Instruction of Experts to Give Evidence in Civil Claims and the Practice Direction on pre-action conduct and must make a declaration of this understanding within their expert witness reports. If the expert is required to present their evidence they could find themselves being cross-examined on this declaration and their understanding of the rules. Bond Solon has developed a web learning Civil Procedure Rules Certificate with Lord Woolf and leading litigators to enable experts to evidence their understanding and compliance of this recent requirement. Further details of this Certificate are available at www.bondsolon.com/cpr-web-based-training.

Members of the Institution will receive a discount on the cost of the Certificate.

Institution gives support to UK Schools Powerboat Challenge

Defence and security technology company, QinetiQ, is again introducing schoolchildren to ship design by organising the second QinetiQ Schools Powerboat Challenge, supported by The Royal Institution of Naval Architects and the Smallpeice Trust.

The event is designed to give pupils valuable experience in receiving a design brief, solving problems and producing a working model boat that they can then showcase at a regional level. Pupils, aged between 13 and 16, from up to 12 local Gosport schools will work in teams of five to design and build radio-controlled model powerboats and these will then be raced in QinetiQ's Ocean Basin in Gosport.

Each team will receive a pack containing standard propulsion components and all the design brief information for the team of pupils to get started. Naval Architects from QinetiQ will also be visiting each of

the schools to provide some direction and give support through the build process.

Building a model powerboat is not a simple task. The pupils will be challenged with balancing criteria such as size, speed, weight and motor cooling – while at the same time making it safe to operate and with a stylish livery. In this sense, the pupils will all become Naval Architects throughout this process.

On the day of the race the pupils will have to present their boats to a team of QinetiQ scientists, engineers and mathematicians and this will add a valuable presentation and learning element to their experience. Pupils are required to compile a log book or presentation of their work to show how they undertook the design and build process.

Prizes will be awarded for the fastest boat and the best engineered design and then the winning teams will be invited back to QinetiQ for a guided tour around

the world-class and historic facilities. This will provide a unique insight into ship and submarine design, unseen by the general public, and enable them to put the knowledge they gained from building their model into the context of real business. The winning teams will be awarded with a year's Junior Membership to RINA.

This competition really demonstrates how science, engineering and mathematics can lead to exciting and diverse careers – particularly in marine engineering and naval architecture. For more information about the competition, please email Chris Fisher at cjfisher@qinetiq.com.

Encouraging tomorrow's naval architects is an important objective of the Institution. I would be interested to hear of similar events in other countries, which the Institution might also support.

Chief Executive

LETTERS TO THE EDITOR

Chinese Junk Watertight Bulkheads

Sir: Amid the folderol dealing with French baguettes and Peruvian scissor dances, UNESCO has declared the watertight bulkheads in Chinese junks an item of "intangible world cultural heritage". Perhaps one of the first examples of naval architecture being so designated.

Now, I must confess that I'm not convinced that the original bulkheads in Chinese junks were, in fact, intended to be watertight. Two papers - one on Song Dynasty ships, the other on Chinese trading ships - clearly show that these bulkheads had limbering holes at the bottom, allowing water to flow freely. My own guess is that these bulkheads were entirely structural in nature.

I do firmly believe, on the other hand, that Samuel Bentham, Benjamin Franklin and John Schank all proposed watertight bulkheads around the same time (1780s-1800) based upon the Chinese example. Bentham, at least

built several barges in Russia on this principle (before he knew of Chinese junks?), as well as ships Arrow and Dart.

Dr. Larrie D. Ferreiro
larrie.ferreiro@verizon.net

Sir; Further to Dr Ferreiro's letter, I have an open mind on whether the original bulkheads were intended to be watertight because they were almost certainly fitted for structural stiffness, but I am sure that the advantage of watertightness for protecting cargo was noticed early on. As far as Bentham is concerned he served with the Russians for Potemkin in the Far East and would have been exposed to Chinese river and coastal boat designs, and the belief of his wife in her biography of him was that he learned of the advantages of transverse structural watertight bulkheads at that time.

David Chalmers
Chalmers-d@talktalk.net

C W Philbeach - Naval Architect

Sir: A friend owns an antique chest on one side of which appear the following words:

Mr. C. W. Philbeach
Naval Architect
Chatham
For King and Country
G III R

I would be grateful for any biographical information about Mr. Philbeach which your members might have.

Barbara Walsh
USA
bbwalsh42@verizon.net