



RINA AFFAIRS

MARCH/APRIL 2012

The Newsletter of the Royal Institution of the Naval Architects

CHIEF EXECUTIVE'S COLUMN



I am frequently asked by those not in the maritime industry (and regrettably, sometimes by those who are) just what does the Institution do? There is often a belief that the Institution designs ships, and only naval ships at that! I reply by saying that the Institution does not, but its members do – and much more – and that their ships are not just painted grey.

I tell them that the Institution was formed over 150 years ago, and today is an international organisation with members in over 90 countries. Its members are involved in all aspects of the design, construction and maintenance of marine vessels and structures, in all sectors of the maritime industry – commercial, military, recreational and offshore. I tell them that the Institution is concerned with professional standards, setting stringent requirements for membership in all classes, and recognising the achievement of those standards by the award of a professional qualification which is recognised and respected throughout the global maritime industry, and is demonstrated by the letters after their name. I tell them that the Institution is also concerned with professional integrity and that its members are bound by the Institution's Code of Professional Conduct.

I tell them that in order to maintain their professional competence, members need to keep themselves up to date with developments in the global maritime industry, and that they can do this by reading the wide range of journals that the Institution publishes and attending the conferences and courses which it organises worldwide, or the technical meetings organised by its local Branches.

I tell them about the links which the Institution has with universities worldwide, providing a link between academia and industry, and of the many awards it presents which recognise and encourage achievement, both in universities and industry. I tell them of the work of the Institution with organisations such as the Smallpeice Trust in encouraging schoolchildren to consider a career as engineers in the maritime industry.

I tell them about the wider activities of the Institution, such as its work at the International Maritime Organisation in helping to improve safety at sea and to protect the maritime environment, or its efforts to improve fishing vessel safety.

I tell them that the Institution is independent of governments or industry. I tell them that its members are proud of their Institution, and that much of what it does and achieves is the result of their efforts.

What do you tell your friends and colleagues who ask the same question? What do you answer when you perhaps ask yourself what you are getting for your membership fee? I hope you tell them, and yourself, the same.

Trevor Blakeley

IN THIS ISSUE

2012 AGM

The 2012 AGM will be held at the Institution's Headquarters on 17 April. Members may register their proxy votes online or by post.

Maritime Safety Award

Nominations are invited for the 2012 RINA – Lloyd's Register Maritime Safety Award.

Publications Special Issue

Buy the Transactions of your year of birth, or year of becoming a member of the Institution - \$5 + p&p.

IMO

This year, the Institution celebrates 10 years as an NGO at the International Maritime Organisation, during which time it has made a significant contribution to improving safety at sea and protecting the maritime environment.

Fishing Vessel Safety

The Safety Committee has given the improvement of fishing vessels safety a high priority in its current work.

Letters to the Editor

Letters to the Editor include a report of progress on the proposal to design and build a 650 foot 198 metre barque rigged sail training ship as a national flagship.

People in the News

The achievements of members in Korea and Indonesia are recognised by Institution and university awards.

Getting the best from private health insurance

Julie Thomson of HMCA gives a few pointers to consider when choosing the right provider for members and their family.

2012 Annual Membership Fees

Membership and EC Registration fees (if appropriate) were due on 1 January 2012. However, some members have yet to forward their payments. These members 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, at www.rina.org.uk/PayFeesOnline. Failure to do so without explanation may result in loss of membership and registration.

Members who have any queries about their Membership or Registration fees, or who have not yet received (or who have mislaid) their 2012 Annual Fees Notice are requested to contact the Accounts Department at accounts@rina.org.uk or by telephone at +44 (0)20 7235 4622.

PUBLICATIONS SPECIAL OFFER

Transactions

The Transactions and Annual Report of the Royal Institution of Naval Architects has been published annually since 1860. It contains the Annual Report and Accounts, the Roll of Members, Council and Officers of the Institution, Divisions and Branches, and speeches at the AGM and Annual Dinner. It also contains the full text of all reviewed papers published by the Institution during the year.

We are now offering volumes 1860 – 2005 at the discount price of £5 plus postage (UK: £9 Eur: £18 RoW: £33) for each volume.

Why not order a copy from a year that has some significance to you, for example, your birthday, or the year you became a member?

**To order your copy, please contact the Publications Department at
RINA, 10 Upper Belgrave Street, London, SW1X 8BQ, UK;
Tel: +44 (0)207 235 4622;
Fax: +44 (0)207 259 5912
e-mail: publications@rina.org.uk**

Please note that some volumes may be sold out or in limited numbers.

QUOTE OF THE MONTH

"It is true that improved results in ship-building have been obtained through accumulated experience; but it unfortunately happens that many of the theories by which this experience is commonly interpreted are interwoven with fundamental fallacies, which, passing for principles, lead to mischievous results when again applied beyond the limits of actual experience".

William Froude, 1875.

HEADQUARTERS FACILITIES

The Headquarters of The Royal Institution of Naval Architects at 10 Upper Belgrave Street, London, offer a high-quality, low-cost venue for conferences, meetings, examinations and exhibitions for any number up to 80, within 5 minutes walking distance of Victoria tube, rail and bus station. AV facilities are available and catering can be provided. Members enjoy a 10% discount on booking rates.

The Weir Lecture Hall will seat up to 80, and can be set out in conference, classroom or seminar style.



Weir Lecture Hall

The Denny Library will accommodate up to 50 in lecture room style, or seat 30 at the conference table.



Denny Library

The Members' Room will sit up to 30 in lecture room style, or seat 14 at the table.



Members' Room

For further information or to book the Headquarters' facilities, contact Sally Charity, Tel: +44 (0)20 7235 4622; Email: scharity@rina.org.uk

RINA – 10 Years at the IMO

In April 2002, the Royal Institution of Naval Architects was appointed as a Non Governmental Organisation (NGO) with consultative status of the International Maritime Organisation. During the past ten years, the Institution has made a significant contribution to the work of the IMO.

In addition to its active participation in IMO Committees, Sub-Committees, Working Groups and many Inter-sessional Correspondence Groups, the Institution has submitted the following papers:

LARGE PASSENGER SHIP SAFETY (MSC 75/INF.36 – 26 March 2002) - Results of a workshop on passenger ship safety.

COMPARISON OF GENERAL CARGO SHIP LOSSES AND FATALITIES (MSC77/25/4 – 25 MARCH 2003).

REVIEW OF THE 2000 HSC CODE AND AMENDMENTS TO THE DSC CODE AND THE 1994 HSC CODE (DE 49/5/3 – 14 Dec 2005) - Consistency in determination of operating limitations.

REVIEW OF THE 2000 HSC CODE AND AMENDMENTS TO THE DSC CODE AND THE 1994 HSC CODE (DE 49/INF.5 – 14 Dec 2005) - Consistency in determination of operating limitations.

SHIP DESIGN AND EQUIPMENT (MSC 83/9/3 – 31 July 2007) - Comments on the report of the fiftieth session of the Sub-Committee.

REVISION OF THE INTACT STABILITY CODE (SLF 51/INF.6 – 23 May 2008) - Research outcomes for new generation intact stability criteria.

GOAL-BASED NEW SHIP CONSTRUCTION STANDARDS (MSC 86/5/14 – 9 April 2009) - Tier III – Verification of Compliance.

GUIDELINES FOR VERIFICATION OF DAMAGE STABILITY

REQUIREMENTS FOR TANKERS AND BULK CARRIERS (SLF 52/9/3 – 20 Nov 2009) - Three ways of verifying the Loading Conditions.

REDUCTION OF GHG EMISSIONS FROM SHIPS (MEPC 61/5/8 – 23 July 2010) - Definition of draught in the calculation of the EEDI.

DEVELOPMENT OF NEW GENERATION INTACT STABILITY CRITERIA (SLF 53/3/3 – 4 Nov 2010) - Activities of the Dynamic Stability Task Group of the Society of Naval Architects and Marine Engineers.

DEVELOPMENT OF NEW GENERATION INTACT STABILITY CRITERIA (SLF 53/3/4 -5 Nov 2010) - International Code on Intact Stability, 2008 (2008 IS Code) – Angle of heel in turns.

REVIEW OF DAMAGE STABILITY REGULATIONS FOR RO-RO PASSENGER SHIPS (SLF 53/10 – 5 Nov 2010) - Review of the SOLAS 2009 damage stability regulations and the Explanatory Notes to the SOLAS 2009 regulations.

WORK PROGRAMME (MSC 89/22/16 – 22 March 2011) - Amendment of the 2008 IS Code – Criterion for angle of heel in turns.

DEVELOPMENT OF AMENDMENTS TO THE CRITERION FOR MAXIMUM ANGLE OF HEEL IN TURNS OF THE 2008 IS CODE (SLF 54/12 – 12 October 2011) - Proposed amendment to the 2008 IS Code.

DEVELOPMENT OF A NEW FRAMEWORK OF REQUIREMENTS FOR LIFE-SAVING APPLIANCES (DE 56/6/5 – 22 December 2011) - Review of the life-saving appliance accident data on incidents in United Kingdom waters, between 2001 and 2011, for cargo ships 500 gross tonnage and above and passenger ships carrying more than 12 passengers.

AIR POLLUTION AND ENERGY EFFICIENCY (MEPC 63/4/17 – 3 Feb 2012) - Application of cubic capacity correction factor to tankers.

AIR POLLUTION AND ENERGY EFFICIENCY - Application of cubic capacity correction factor to tankers (Submitted by BIMCO, INTERTANKO, OCIMF and RINA).

COMPARISON OF GENERAL CARGO SHIP LOSSES AND FATALITIES.

GENERAL CARGO SHIP SAFETY - Comments on general cargo ship losses and fatalities.

CONSIDERATION OF THE ENERGY EFFICIENCY DESIGN INDEX FOR NEW SHIPS - Proposals for modifications to the Energy Design Index.

REVIEW OF THE ENERGY EFFICIENCY OPERATIONAL INDEX - Monitoring of the Operational Index.

FURTHER IMPROVEMENT OF THE DRAFT TEXT FOR MANDATORY REQUIREMENTS OF EEDI AND SEEMP - Energy Saving Devices.

CONSIDERATION AND ADOPTION OF AMENDMENTS TO MANDATORY INSTRUMENTS - Mandatory carriage of stability instruments on tankers (Submitted by the MCA, RINA, etc.).

The Royal Institution of Naval Architects considers that safety at sea and the protection of the environment begins with good design, followed by sound construction and skilled operation. Naval architects are involved in all these activities. The Institution considers that it holds its Consultative Status on behalf of the international naval architecture profession. On being appointed an NGO, it formed an IMO Naval Architectural Group of those professional institutions and societies which represent the global naval architecture profession, and wish their views to be represented at the IMO.

As an NGO, the Institution has made a positive and significant contribution to the work of the IMO, and to the safer use of the seas. This contribution was acknowledged by the Secretary General of the IMO, Efthimios Mitropoulos Hon FRINA, when he said:

“As a member of the IMO family, the Royal Institution of Naval Architects has

played its part, to the full, in helping the Organisation to steer a safe course through what are sometimes hazardous waters. The technical expertise and pragmatism that the Institution has brought to its proceedings has proved vital on countless occasions and invariably assists our Members to find the best solutions. So let me thank the Institution, for the positive

and constructive role it has always played; let me also thank the Institution, in advance, for continuing to bring its insight and knowledge to the table, as I am certain it will.”

The Institution will indeed continue to make its insight and knowledge available to the work of the IMO in the years to come.

GETTING THE BEST OUT OF PRIVATE MEDICAL HEALTH

The majority of RINA members will be aware of private health plans. For many, the plan will be provided by their employer, but for others it will be self funded. But whether considering whether to take out private medical health cover, or faced with the annual renewal for their current plan, it is important to ensure that they have the right plan and provider to suit their circumstances. In this article, Julie Thomson of HMCA gives a few pointers to consider when choosing the right provider for members and their family.

Trying to compare medical plans is nigh on impossible because of the various clauses, jargon and rules that apply to different providers and plans. Do you want in-hospital and overnight stays, or in-hospital outpatient cover and choice of hospital. You will be inundated with moratoriums, excess, and so the list goes on. You want simplicity and a full understanding of what you are buying. In order to try and simplify the process for you, the first step towards getting a plan is to make a list of what YOU want from your plan and one that best suits you, your state of health, lifestyle and cost.

If you spend a lot of time abroad or have sporting hobbies, you may want to consider a plan that covers you for travel and interests. What if you want to change from your current plan, make sure that your potential provider offers you a free Transfer facility which has no breaks in your cover. Once you have made your list, you can start to research and compare the various providers and plans. A good tip is to balance what you need with the amount you want to pay.

One of the key factors of taking out a private medical health plan is to give you peace of mind when faced with the prospect of surgery or medical condition. We interpret peace of mind as being able to talk to your provider about any concerns you have and being treated in a personal, sympathetic and professional manner. The last thing you want is to be connected to an automated service and pushing buttons to get through to someone.

Ok, so you have done your research and now deciding who to choose. Quite simply, pick up the phone and call each provider. Speak to their Claims Department and assess their handling of your enquiry. Having to claim on your health plan is the reason for joining. You need to know how their system works, including how approachable the staff are, what is the claims procedure and how quickly will your claim be settled.

These few simple steps can help ease the stress of taking out a private medical health plan, and bring you the peace of mind that prompted you to provide it for yourself in the first case.

**You may contact Julie on 01423 866985
or visit www.hmca.co.uk .**

Professor Jeom Paik FRINA

Professor Jeom Paik, Professor and Director of the Ship and Offshore Structural Mechanics Laboratory, Department of Naval Architecture and Ocean Engineering at Pusan National University has received the Insignia of The Doctor Honoris Causa (Honorary Doctor) from the University of Liege, Belgium.

RINA – Keppel Student Naval Architect Award

The following students will be awarded the RINA-Keppel Student Naval Architect Award for outstanding performance in the module ‘Ship Design’ (Group Project) in Marine Offshore Technology Diploma Course at Ngee Ann Polytechnic, Singapore:

- Lee Wei Xian
- Tan Yong
- Ko Wei Jun
- Tan Kian Peng

RINA – PT Pal Student Award

The RINA – PT Pal Student Award for outstanding performance in their courses at the Faculty of Marine Technology of Institut Teknologi Sepuluh Nopember (ITS), Surabaya has just finished the selection of the winner of this year award of the first batch/term.

- I Gede Agus Putra Wicaksana
- Abdul Azis Arfi
- I Made Bayu Weda Suputra

Commendations were also awarded to:

- Anak Agung Lanang
- Oka Safrendyo
- Department of Marine Engineering
- Yarlinda Juliardi
- Moch. Tohir
- Norman Mahdar Sabana
- Eko Yusroni

RINA – Lloyd’s Register Asia Student Naval Architect Award

The RINA – Lloyd’s Register Asia Student Naval Architect Award was presented to the following students :



Recipients of the RINA – LR Asia Student Naval Architect Awards.

- Byoung-Nam Kim (Mokpo National University)
- Huai-Ji Li (Pukyong National University)
- Woong-Sup Park (Pusan National University)
- Kyoung-Hyun Lee (Seoul National University)
- Yoon-Nam An (University of Ulsan)
- Daewon Seo (Inha University)
- Jung-Sun (Chosun University)
- Joo-Hee Lee (Korea Advanced Institute of Science and Technology)
- Ji-Hoon Lee (Korea Maritime University)

The Awards were presented at the RINA Korean Branch 2012 Annual Dinner

RINA- BMT Fleet Technology Student Naval Architect Award

Five five teams from Memorial University presented their ship designs to a review panel in competition for the annual RINA-BMT Marine Student Naval Architect Award. Each of the ship designs represented the culmination of three months of effort by teams comprised of four members in their final year of the Ocean and Naval Architectural Engineering Program.

The ship designs presented were based on a wide range of requirements and consisted of: the Arctic Offshore Defence Project - a Nuclear Cruise Missile Patrol Submarine to exert Canadian sovereignty in the north; a Fast Response Craft for Search and Rescue off the east coast; an Arctic Environmental Protection Vessel; a

Remote Operating Vehicle Support Vessel to support offshore Brazilian oil and gas platforms; and finally the *Polar Express*, an extended season arctic supply vessel.

The ship designs were assessed by three panel members: Rick Houseman, Engineering Manager, BMT Fleet Technology, Bruce Colbourne, Professor at Memorial University, and Trevor Butler with Lloyd’s Register. The design reports were assessed on report presentation, technical content and originality. The 20 minute presentations to the panel, faculty, and representatives from government and industry as well as fellow classmates were assessed on clarity, format and audience appreciation.

In a very close in competition, the RINA - BMT Fleet Technology Student Naval Architect Award was presented to the Polar Express Team consisting of Stephen Barnes, Crystal Boland, Matthew Fry and Leah Wroblewski.

Left to right: Trevor Butler, Lloyd’s Register; Stephen Barnes; Crystal Boland; Rick Houseman, BMT Fleet Technology; Matthew Fry; Leah Wroblewski.



CORPORATE PARTNERS IN THE NEWS

Houlder

Corporate Partner, Houlder, has received the Work Placement of the Year Award, presented by the National Council for Work Experience, in recognition of its engineering, naval architecture, project control, finance and business development work placements.

CONFERENCE NEWS

International Conference on the Environmentally Friendly Ship

28-29 Feb 2012, London

16 papers were presented at the conference, attended by delegates from 10 countries, representing academia, research organisations and industry. The conference was sponsored by Rolls-Royce.

The conference demonstrated that there is growing realisation that the marine industry is both a major energy consumer and significant contributor to global pollution. Several papers focussed on the prime movers, with more efficient engine designs, alternative fuels (particularly LNG), the practicalities of sail power and means of measurement and control of funnel emissions. There were examples from industry of hull forms, propeller/rudder designs and coatings to improve the resistance/power curve. Considerable attention was drawn to present and emerging legislative controls on emission limits into the atmosphere and the sea; the latter including lubricating oils from stern seals etc. and underwater noise. Some are voluntary but global concern is moving steadily towards mandating standards such as those proposed by the OECD. The very stringent IMO Tier III limits on atmosphere emissions are driving the industry to invest in radical engineering solutions.

It was interesting to note the presenter/authors of many of the papers were naval architects and it is clear that despite the assertion by one author (paper 7) some naval architects know a lot about a ship's environmental footprint.

Taken together the conference collected a very active and knowledgeable community of researchers and practitioners that showed substantial progress is being made – particularly in Europe. The shipping industry can be accused of dragging its feet compared to others and often must be pushed by legislation to take action on safety matters. Now however there are other incentives to reduce pollution – public pressure scared by environmental scientists, but more importantly the rising costs of fuel and its transport.

For naval architects there is much to do. The tools developed to predict emissions and though-life costs and the assessment techniques to evaluate the ship's environmental impact from cradle to grave, are likely to become standard practices for future ship designers. Iteration of the design to thereby select optimum powering solutions and operating profiles to trade performance with the cost of ownership will in future include as a crucial component the necessary features and cost of environmental management.

R Pudduck FRINA

The full report with comment on each paper can be read online at www.rina.org.uk/p/1/EnvironmentallyFriendlyShip-ConferenceReport.pdf

A National Flagship

Sir; UK members may be interested in progress on the proposal to design and build a 650 foot 198 metre barque rigged sail training ship as a national flagship.

The Future Ship Project for the Twenty First Century (FSP21) Trust has been set up to raise funds to build the ship, for which approval has now been given in an enthusiastic letter from the Prime Minister.

The basic requirements specify a recognisable sailing ship suitable for worldwide operation in a non-confrontational role. She is to carry some 2000 trainees with onboard facilities for training and research to University levels. This they will do in addition to their crewing duties in sailing the ship. One might mention at this point the great success of similar ship operation by Russians, Poles, Scandinavians and Americans and other countries, many of which take part in the Sail Training International annual races.

Colin Mudie FRINA RDI

A full report from designer Colin Mudie is available at www.rina.org.uk/p/1/NationalFlagship.pdf

Chief Executive

THOUGHTS FOR THE MONTH

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

If my ship sails from sight, it doesn't mean my journey ends, it simply means the river bends.

Enoch Powell

For a politician to complain about the press is like a ship's captain complaining about the sea

IMO Committee

The Institution was represented at the following IMO Committee and Working Group meetings held recently:

SLF 54

At SLF 54, the verification of Damage Stability for Tankers and Bulk Carriers was discussed. RINA has supported MCA throughout the development of this work and we both agree that the mandatory fitting of Stability Instruments to check tanker loading conditions for compliance with the MARPOL damage stability criteria is the most satisfactory outcome. A joint paper MSC/RINA was suggested for submission to MSC 90.

The RINA paper: 'Development of Amendments to the Criterion for Maximum Angle of Heel in Turns for the 2008 IS Code' (SLF 54/12) was presented and well-received in Plenary. There was agreement that the issue should be addressed meriting careful consideration. There was general agreement that the work needs to be done but a reluctance to do so now when other matters must be resolved first and noting the workload on the WG. After much debate there was no

agreement to take the work forward at the WG or the CG before the next meeting. There were no volunteers to act as a focal point for informal comments. RINA expressed the view that it was a pity that, although a concrete submission had been made, no one wished to pursue the matter and discuss it in the WG or in a CG before the next meeting.

RINA took an active part in the SLF 54 Working Group on the Subdivision and Damage Stability, and is expected to continue this involvement in the ISSC. RINA presented comments from its paper SLF 53/10 with regards to the fact that the requirements from the Stockholm agreement had NOT been incorporated into the 2009 stability regulations. While noting that the EC was still requiring the Stockholm agreements to be applied to ships constructed in accordance with Stability 200, this was not the case for passenger ships constructed outside the EC and RINA considered that such ships may be at risk if damages penetrated the vehicle deck. It was reiterated that RINA considers that an interim regulation should be applied until such time as the work of the research projects are finished

and an acceptable solution is found to the water on deck problem.

DE 56

At DE 56 RINA took an active part in the development of the Polar Code, but there was some reservation about the extent of the inclusion by DE of environmental considerations. RINA will continue to be involved in the ISSC on this work. The RINA paper: 'Development of a New Framework of Requirements for Life-Saving Appliances' (DE 56/6/50), was presented to the Sub Committee and received without comments. The analysis of the MAIB accident data is currently being reviewed and will be submitted to DE 57, when completed in the first half of this year.

MEPC 63

At MEPC 63, RINA took part in the Energy efficiency (EEI) Working Group. The RINA-submitted paper was debated in plenary, but it was decided that the volumetric correction factor should apply only to Chemical Tankers and not to ALL tankers. Guidelines for the Survey and Certification of the EEDI were finalised.

Safety Committee

The Institution's Safety Committee has been addressing the issue of the safety of small fishing vessels, where recent research has indicated that the fatal accident rate for UK fishermen has been about 115 times higher than for shore-based workers. Nearly 90% of the UK fishing fleet is less than 15 metres in overall length, for which there is much less regulatory oversight than for larger vessels, where good standards have been set for more than three decades. Given the high proportion of small vessels in the fleet, it is not surprising that a large number of fatalities occur in this small vessel group. Such statistics are reflected in the fishing industries of other countries.

Whilst recognising that there are many aspects to the safe operation of

fishing vessels other than their design characteristics, the Safety Committee is giving priority to addressing this safety issue, with the aim of improving the EMSA design of new vessels, and also mitigating the losses of existing vessels.

Following a Forum on Small Fishing Vessel Safety, convened by the Institution last year, the Institution has forwarded a number of recommendations arising from the Forum to government and industry organisations concerned with the safety of the fishing industry:

The Institution was invited to make its recommendations to the Ministerial Advisory Board, the Fishing Industry Safety Group, and to join its Codes and Stability sub group.

At a recent meeting of the group, attended by the RNLI, Seafish, MAIB,

MCA and other organisations, the Institution gave a presentation on its work to date and its recommendations.

The Safety Committee's recommendations following the Seminar and the outcomes of the Codes and Stability group may be read in two reports from the Safety Committee [www.rina.org.uk/p/1/FishingVesselsSafety\(1\).pdf](http://www.rina.org.uk/p/1/FishingVesselsSafety(1).pdf) and [www.rina.org.uk/p/1/FishingVesselsSafety\(2\).pdf](http://www.rina.org.uk/p/1/FishingVesselsSafety(2).pdf)

As an international organisation, the Institution recognises that the safety of small fishing vessels is not just a UK or European issue, but considers that by focussing on the UK industry, changes may be achieved which will be applicable to the industries of other countries.