



RINA AFFAIRS

MARCH/APRIL 2017

The Newsletter of the Royal Institution of Naval Architects

CHIEF EXECUTIVE'S COLUMN



In his Report to members at the 2017 Annual General Meeting, the President will reflect on the Institution's activities and achievements over what has again been an eventful and challenging year. He will reaffirm the Institution's commitment to encouraging the younger members of the profession to be involved in its activities. He will pay tribute to the work of those members who give willingly of their time to serve on the Institution's Branch and Institution Committees. He will also look forward to the changes and activities members can expect over the next 12 months, which is also likely to be a challenging year for both the Institution and the maritime industry.

The President will present his report as the Chairman of the Board of Trustees, now in its fourth year as the governing body of the Institution. During the past year, the Board has completed an extensive internal audit of the governance, financial management and administration of the Institution. The audit confirmed that the Institution was indeed being achieving its Objectives as stated in its Charter of 1910 *'the improvement of ships and all that specially appertains to them, and the arrangement of periodic meetings for the purpose of discussing practical and scientific subjects bearing upon the design and construction of ships and their means of propulsion, and all that relates thereto'*. Those Objectives remain equally valid today, although reflecting the wider range of activities of the Institution as both a professional institution and learned society, they may be more aptly described as *"to encourage and assist in the achievement of the safe and efficient design, construction, maintenance and operation of marine vessels and structures."*

The internal audit also confirmed that the Institution was being governed in accordance with the requirements of the UK Charity Commission. Members will be aware of the importance of the Institution's status as a registered charity which provides significant benefits, particularly financial.

During the year, the Council has focussed its attention on the professional, technical and learned society affairs which are at the heart of the Institution. In that respect, the Council of today is fulfilling the role of the Council in 1860. In his Report, the President will refer to the outcome of the review of the Technical Committees structure, through which the Institution makes its collective expertise available for the benefit of society and the profession.

As with previous Annual General Meetings, the Institution's Medals and Prizes for papers of distinction published in the Transactions and the best papers also published in the Transactions by authors under the age of 30 will be announced. The winners of the RINA – Lloyd's Register Maritime Safety Award and the RINA – QinetiQ Maritime Innovation Award will be announced by the President at the Institution's Annual Dinner.

The Annual General Meeting held in the Institution's new Headquarters at Northumberland Street, now four years since the move from Upper Belgrave Street. Any member who has the opportunity while in London is invited to visit the Headquarters and see the facilities which it offers. Members are reminded that members may book the rooms for meeting, at a discount.

Chief Executive

IN THIS ISSUE

2017 AGM

All members are invited to the 2017 Annual General Meeting, which will be followed by a presentation on "60 years of Research at Newcastle University".

New Members

Members' assistance in making contact with new members is requested

Letters to the Editor

Information is requested about Charles Robert Owen Jarvis, principal shipwright at the Samura shipbuilding yard on the Isle of Dogs. Can you help?

Website

Recent changes to the website www.rina.org.uk include the introduction of Forums to improve the interface between members and the Institution, and between members.

Student Awards

The Institution congratulates those students whose achievements have been recognised by the presentation of Student Awards.

Bookshop News

Significant Ships of 2016 and Significant Small Ships of 2016 are now available from the RINA Bookshop.

Transaction Papers

All members may now access the digital editions of the IJME and the IJSCT.

Assistant Editor

Members interested in becoming the Assistant Editor of the IJME and IJSCT are invited to contact the Chief Executive.

Where to stay in London

Members enjoy a reduced rate at the Club Quarters – 2 minutes' walk from RINA headquarters.

2017 ANNUAL GENERAL MEETING

NOTICE IS HEREBY GIVEN THAT IN ACCORDANCE WITH BY-LAWS 39 AND 42, THE ANNUAL GENERAL MEETING OF THE INSTITUTION WILL BE HELD AT 8-9 NORTH-UMBERLAND STREET, LONDON, WC2N 5DA, ON 27 APRIL 2017 AT 11:00 FOR THE FOLLOWING PURPOSES:

1. To receive the Annual Report and the Financial Statement for the year ended 30 September 2016.
2. To consider and if felt fit, approve the following Resolution:

Resolution: To re-appoint haysmacintyre as the Institution's auditors

Note.

1. All members have the privilege to attend the above meeting, but only Voting Members are entitled to vote on the Resolutions.
2. Members entitled to vote on the Resolutions may appoint the Chairman of the meeting as their proxy to vote on their behalf.
3. Proxy Forms are available online at www.rina.org.uk/p/1/2017%20AGM%20Proxy%20Form.pdf and must be returned by post or email, to arrive by 10:30 on 27 April 2017

AGENDA

1. President opens the AGM
2. Annual Report of Council
3. Financial Statement for 2015/16
4. AGM Resolutions
5. 2017 Elections to Council
6. 2016 Medals and Prizes
10. President's Report
11. General Discussion
12. President closes the AGM

On completion of the AGM, there will be a presentation by George Mitchell, Newcastle University, entitled "Sixty Not Out" in which he describes some of the consultancy and research contracts that have been successfully completed in that time.

Following the presentation, a buffet lunch will be available for those attending the AGM. To assist in catering, members intending to attend the AGM and stay for lunch are requested to inform Sally Charity at scharity@rina.org.uk

TRANSACTIONS PAPERS NOW FREE TO MEMBERS

Since 2015, the Transactions – *International Journal of Maritime Engineering*; *International Journal of Small Craft Technology*; *International Journal of Marine Design* – have been published as both printed and digital editions which can be read on PC, iPad and other touchpad / tablet devices. Digital editions can be fully searched online, printed out or annotated with personal notes and bookmarks.

All papers published in the digital editions are now freely available to members from May 2017. Email notification will be sent when new issues are available, and members will have access to the archived issues.

To access the digital editions, click on

- www.rina.org.uk/ijme_digital.html
- www.rina.org.uk/ijsc_t_digital.html
- www.rina.org.uk/ijmd_digital.html

Members will be required to log on using their Membership Number and email address,

New Members wanted

Dear Member,

As a member, you will be aware of the benefits and service which membership of the Royal Institution of Naval Architects provides. In particular, you will be aware that membership provides a professional qualification which is recognised throughout the global maritime industry as demonstrating the achievement of the highest standards of professional competence and integrity. You will also be aware that membership provides access to information on developments in all aspects of the maritime industry through the Institution's international conferences and publications which members receive free or at a reduced cost.

I am therefore writing to ask for your support in encouraging your colleagues to follow your lead in becoming a member of the Royal Institution of Naval Architects and enjoying the benefits of membership of the world's leading professional institution for those involved in the design, construction and maintenance of marine vessels and structures at all levels. I would be grateful if you would let me know (by email to hq@rina.org.uk) the name, position and email address of any of your colleagues who you would wish to introduce as a member. Such potential members could include those at any stage in their career, whether newly graduated or more senior and experienced.

Chief Executive

RINA AFFAIRS

The Institution is not, as a body, responsible for opinions expressed in RINA Affairs unless expressly stated that these are Council's views.

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Student News and Awards

Genoa University

The RINA - d'Amico Best Student Award was presented to Marco Zunino for his thesis "Design of an USV able to support ship towing emergency operations".

National Technical University of Athens

The RINA – Greek Shipping Co-operative Committee Student Award was presented jointly to Alexis-Tzianni Charalampopoulos for his thesis "A Hamiltonian Coupled Mode method for the fully nonlinear water wave problem, including the case of a moving seabed", and to Sotirios-Alexandros Nanopoulos for his thesis "Development of Optimization Software Using Evolutionary Algorithms. Applications in Optimal Machine Design".

Gdansk Technical University

The RINA – KORAB Student Award was presented to Katarzyna Pastwa for her thesis "Model obliczeniowy do sprzężonej analizy dynamicznej pracy turbiny wiatrowej". Also commended were Agata Ołdakowska-Gruchała, Alicja Sabady and Andrzej Iedlecki.

Australian Maritime College

During a recent visit to the Tasmanian Section, the Chief Executive, Trevor Blakeley, met with undergraduate and postgraduate students at the Australian Maritime University, where he also presented the annual RatTrap Boat Race trophy to this year's winners. (Rat Trap Boat Race is a first-year Dynamics assignment in which students have to use a Rat Trap to power a floating vessel

The Chief Executive presents the annual Rat Trap Boat Race Award



Students, staff and judges at the 2017 RINA- BMT Award judging



Winners of the 2017 RINA – BMT Student Award

across the model test basin. The fastest time wins.)

Memorial University of Newfoundland

The graduating class of Ocean and Naval Architectural Engineering (ONAE) students at Memorial University of Newfoundland (MUN) presented their final semester design projects on Tuesday 28 March, 2017. There were a variety of design projects, including a coast guard icebreaker, two ferries for the coast of Labrador, an oceanographic research vessel, a

passenger ferry for the city of Toronto, and a floating dry dock vessel.

The RINA-BMT Fleet Technology Student Naval Architect Award is presented annually for the best senior design project. Judging this year was performed by Jason Mills of BMT, Trevor Butler of Lloyd's Register, and Bruce Colbourne of Memorial University.

All of the projects and presentations were very well done and well received by the judges. The 2017 Award was presented to Lucas Pike, Victoria Ryan, Chelsea Doyle, and Laura Bruneau for their project *Anchor Handling Tug Supply vessel*.

News from the Divisions, Branches and Sections

New South Wales Section

Valerio Corniani, Marine Manager, Diab Group, gave a presentation on *Designing for Slamming Loads on Composite Vessels* to a joint meeting with the IMarEST attended by 29 on 1 February in the Harricks Auditorium at Engineers Australia, Chatswood.

Phil Helmore

UAE Branch

Two papers were presented during a recent meeting held in the Grand Excelsior Hotel, Bur Dubai, UAE.

Mr. Gulab Ramchandani, Head of Classification and Statutory for Emirates Classification Society (TASNEEF) presented the paper *Setting up a New*

Classification Society which talked about challenges and plans for the young classification society TASNEEF which started its operations in UAE in 2012.

The second paper for the evening was presented by Mr. Uday Moorthi, Founder and Managing Director for Quest Marine, a marine consultancy firm based in Dubai, UAE about *Catalytic Fines in fuel oils and repercussions*.

The evening was attended by 50 Branch members and invited guests. Rajesh Panicker, Branch Secretary welcomed the attendees and introduced the speakers and their topics. Mr. Ashik Subahani, UAE Branch Chairman gave his address after the paper presentation and thanked the speakers

for supporting the Institution and the Branch

Genoa Branch

A seminar on "IMO Goal Based Standards for Ship Classification" was jointly organised with ATENA and the Council of Engineers of Genova.

The speakers were Prof. Cesare M. Rizzo (University of Genova); Dr. Dino E. Cervetto (RINA Italian Classification Society) Dr. Lucio Bonaso (d'Amico Navigation Company) Dr. Maurizio d'Amico - RINA Council

Carlo Podenzana-Bonvino, Chairman of the Genoa Branch, chaired the seminar and the subsequent discussions, where number and level demonstrated the interest of the selected subject among the maritime community.

BOOKSHOP NEWS

The following publications are now available from the RINA Bookshop

Significant Ships of 2016

The 27th issue of this annual RINA publication is now available and features, in one volume, a total of approximately 50 of the most innovative and important commercial designs delivered during the year by shipyards worldwide. Following the successful format of previous editions, **Significant Ships of 2016** includes a cross-section of ship types, with each vessel being either representative of its type or singularly significant. Each ship description comprises of a concise technical description, extensive tabular principal particulars, including major equipment suppliers, detailed general arrangement plans and a colour ship photograph.

Ref: SIGS16: Publication Price - £49 (RINA Members £43) Available in Printed or CD-ROM format

Significant Small Ships of 2016

Now in its 19th year of publication, contains approximately 28 new vessels, each being singularly significant or the first in a series and includes - fast ferries and passenger vessels, tugs and workboats, fishing, and offshore patrol etc. This mixed but fascinating selection of small craft, all between 15m and 100m in length, have been hand-picked by the same editorial team that produces **Ship & Boat International**, RINA's own leading small craft publication, and is backed by its world-renowned resources.

Ref SSC16: Publication Price - £32 (RINA Member £27) Available in Printed or CD-ROM format

Significant Ships of 2016 + Significant Small Ships of 2016

One copy each of Significant Ships of 2016 and Significant Small Ships of 2016 can be ordered as a set.

Publication Price £65 (RINA Member £56) Available in Printed or CD-ROM format

To order any of the above publications:

Tel: + 44 (0)20 7235 4622; Fax + 44 (0)20 7259 5912; email: publications@rina.org.uk
or visit the publications webpage: <http://www.rina.org.uk/sigships.html>

Letter to the Editor

Charles Robert Owen Jarvis

Sir: My great great grandfather was Charles Robert Owen Jarvis, born 1831 in Limehouse, London. He was a principal shipwright at the Samura shipbuilding yard on the Isle of Dogs. He then went as Chief Shipwright on Sir Samuel Baker's expedition to Africa to stop the slave trade. All exciting stuff.

I would be grateful if any of your members could provide any information about the Samura Brothers and my grandfather, or point me in the direction of such information.

Mark Jarvis
markjarvis@yahoo.com

News from the Forums

If you have visited the RINA website at www.rina.org.uk recently, you will have noticed that it has been extensively updated, with a number of new features. One of these has been the introduction of Forums, intended to improve the interface between members and the Institution, and between members. These Forums may be used to keep members informed of the activities of the Institution's committees and to enable them to comment on these activities or propose other activities to be considered. Members may use the Forums to start a Discussion on any matter within the scope of the Institution's activities and interests, and to add Comment to those Discussions. All Forums have a no advertising or recruitment policy. Members may opt to receive an email whenever a new Discussion or Comment has been posted.

Recent Discussions in the Forums include:

IMO Forum:

Report of SSE 4

The meeting was held from 20 to 24 March 2017 and attended by members of the IMO Committee.

Report of SDC 4

SDC 4 was held from 13 to 17 February 2017. The meeting and working groups were attended by members of the Institution's IMO Committee.

IMO regulations on the allowed sail assist structure without sail or feathering

Information requested for an IMO (or other) directive on the area of structure, spars or other exposed equipment for sail assist vessels.

Australian Division Forum

2017 AGM

President's Report and minutes of the 2017 AGM

ASSISTANT EDITOR

Members who would be interested in taking up the position of Assistant Editor of the Transactions – the International Journal of Maritime Engineering and the International Journal of Small Craft Technology – are invited to contact the Chief Executive at tblakeley@rina.org.uk

The Assistant Editor acts as the link between the authors, the Editors and the Institution, receiving abstracts, forwarding to the Editors and reviewers (if accepted), informing authors of decision, receiving papers (and chasing up authors!) and generally providing guidance to authors on formatting – but is not involved in the selection or review of papers. All correspondence is carried out by email, with no requirement for meetings at Headquarters. The Assistant Editor is not an employee of the Institution, but receives an Honorarium of £1200 pa.

The position would suit a retired member who would like this opportunity to put something back into the Institution – and have the chance to read all papers published in the Transactions before they are published!

Where to stay in London

Members and their guests visiting London on business or pleasure may take advantage of the Institution's membership of Club Quarters to stay at its Trafalgar Square Hotel, situated at 8 Northumberland Avenue, less than one minute's walk from RINA Headquarters.

The Institution's membership provides a fixed lowest rate of **£159 per room** which is always available to conference delegates, regardless of the varying higher rates throughout the year for non members. An even lower rate is available only for Institution members and guests at weekends (Fri, Sat and Sun) and holidays (**£69**). Guests do not need to be accompanied by the member.

Other benefits include access to the Club Living Room with complimentary refreshments, WiFi and unlimited chilled, purified bottled water, and a Rewards Programme offering a "Night on the House" after just one stay.

Members may find details of the facilities offered by Club Quarters Trafalgar Square or book online at <http://clubquarters.com/royal-ins-naval-architects>, using the login "RINA" (without the quotes) on their first visit and selecting Trafalgar Square from the choice of hotels.

Members and their guests who wish to take advantage of the lower rate at weekends, which is not shown online, should contact ClubQuarters at **+44 (0)20 7451 5800**



RINA Headquarters

8-9 Northumberland Street, London

The Scott Russell Room

One of the meeting rooms in the Headquarters at 8-9 Northumberland Street is named after John Scott Russell, a founding member of the Institution.

John Scott Russell graduated from Glasgow University in 1825, aged just 17, going on to teach mathematics and natural philosophy at Edinburgh University. In the 1830s he began research into wave-generation and its effects, which resulted in his discovery of the 'solitary wave'.

He moved to London in 1844 and, in collaboration with Isambard Kingdom Brunel, built the pioneering iron steam ship the *Great Eastern* (1856). He also designed HMS *Warrior* (1860), the largest and fastest ship of its day, which revolutionised warship construction.



The Scott Russell Room

He was Secretary of the Society of Arts from 1845-1850, and Secretary to the Committee behind the Great Exhibition of 1851. He was one of the founders of the Institution of Naval Architects in 1860.

The Denny Room

Used for meetings, conferences and housing the Institution's library, the



Conferences in the Denny Room

main public room at the Headquarters is the Denny Room, named after Sir Archibald Denny.

Archibald Denny was a member of the Denny family who had been involved in shipbuilding in Dumbarton from the early 19th century. William Denny & Sons of built over 1500 ships at their Dunbarton yard between 1844 and 1963. They built all types of ships but were particularly well known as builders of fine cross-channel steamships and ferries. Always innovators they were responsible for a number of firsts, including *Rotomahana* (1878) - the first all-steel merchant ship; *King Edward* (1901) - the first commercial turbine steamer; *Robert the Bruce* (1834) - the first all-welded vessel. Denny's was the first commercial yard to use a Ship Model Experiment Tank. In charge of technical developments at the shipyard, Archibald Denny was closely associated with Denny's international reputation for innovation and high quality ship design.

The Froude Room

One of the meeting rooms in the Headquarters at 8-9 Northumberland Street is named after William Froude - a name familiar to all naval architects.

William Froude's work in identifying the most efficient shape for the hull of ships, as well as predicting ship stability with reference to reduced-scale models, had a significant influence on ship design.

Board meetings in the Denny Room

In 1861, he wrote a paper on the design of ship stability in a seaway, published by the Institution of Naval Architects, recognised today as a major advancement in ship design theory. Between 1863 and 1867, through a series of experiments using models to determine the physical laws



The Froude Room

governing full-scale ships, he discovered the laws by which the performance of the model could be extrapolated to the ship when both have the same geometrical shape. The Froude number, expressed as the ratio of a vessel's velocity to the square root of the product of its waterline length and the acceleration of gravity, is still used today by naval architects to predict the behaviour of ships from scale models.

Foyer

Visitors to the Headquarters are greeted by the splendid model of the *Cutty Sark*, on loan to the Institution.



The Foyer

All rooms may be hired by members, at a discounted rate. For details of availability and cost, contact Sally Charity at scharity@rina.org.uk