RINA AFFAIRS

NOVEMBER/DECEMBER 2020

The Newsletter of the Royal Institution of Naval Architects

CHIEF EXECUTIVE'S COLUMN

Welcome to my first Chief Executive's column, and the last RINA Affairs of 2020.

As we will look back on a year dominated by COVID-19, we appreciate the profound effect it has had on all our lives in one way or another. The way we work has changed and we have adapted accordingly including but not limited to the way we deliver our news. We use social media and other tools effectively and have developed eclectic and sophisticated skills with regards to delivering online meetings, conferences and events. This has enabled us to remain connected with our International members and reach out as 1RINA, and as market conditions alter course then we will manoeuvre and adapt our communication strategy accordingly.

The President's Invitation lecture was broadcast online with over 230 participants enjoying a fantastic lecture on *Decarbonizing Shipping* by Mr. Bo Cerup-Simonsen, CEO, Maersk McKinney Moller Centre for Zero Carbon Shipping. We had great feedback and a fantastic response to this event and the lecture is now available on our YouTube Channel. I would also like to send my personal gratitude to Mr. David Davenport-Jones, Director ABS.

I have been very impressed with the great work that is produced by our Standing Committees and the dedication and commitment from our Committee Chairpersons and members, and I will maintain a forum to discuss the latest news and provide access for everyone. We really are leaders and experts in every corner of the international maritime community, and add excellent value and I am extremely proud to be part of our Institution, and I encourage all members to keep beating the drum as Membership is something to be proud of.

The regional structure and appointment of Vice Presidents has enabled further engagement for all members. We encourage members to support the activities of your local RINA community and ask your colleagues and students to consider membership of the Institution and if we miss something then we can *catch up* on RINA YouTube Channel.

When I consider our role and capabilities in the Maritime Community, never have I felt more relevant when tackling subjects including the environment, safety, innovation etc. and this is something that I am extremely proud of.

Finally, from all at RINA HQ we wish all of you who are currently celebrating festivities a wonderful time and prosperous New Year.

Chris Boyd, *Chief Executive*

IN THIS ISSUE

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2021 Events Programme
RINA sets out its events programme for the next year

International Journal of Maritime Engineering
RINA has reached an agreement with University of Buckingham Press (UBP) to publish its existing publication IJME from the second quarter of 2021.

Members in the News
Sir John Parker FRINA FRAEng becomes one of seven engineers to be inducted into the newly launched City of London Engineering Hall of Fame.

Members are requested to join the CPD Assessment Panel
Training and guidance on the review of Reports will be provided to members of the CPD Assessment Panel.

Letters to the Editor
Seeking more information about what ships were designed by William Henry Gard of Fishers, Ship Design. Can you help?

2021 Membership and Registration Fees

2021 Annual Membership and Registration (where appropriate) Fees Renewal Notice have been issued by email, with posted copies only to members for whom an no email address is held.

Membership fees may be paid online by using all major credit cards. Payment can also be made by bank transfer or personal cheque drawn down on a GBP, Euro, A$, N$, Can$ or US$ account, but members should remember that the bank will make a charge for transfer and please ensure that the full amount is transferred. Members experiencing administrative problems are asked to contact accounts@rina.org.uk as soon as possible after receiving your Notice.

All members are entitled to receive the printed and digital issues of *The Naval Architect*, *Warship Technology* and *Offshore Marine Technology*. Members have the option to receive the digital version only, with a corresponding reduction in membership fee. Many members find this to be the most convenient method of receiving and reading magazines via the RINA Publications App or simply opening it up on the PC with a financial saving to both the member and the Institution.

Members receiving the digital issue have access to all archived issues. Members are requested to check their My RINA page on the Institution's website before paying their 2021 Membership fee, to ensure that they are receiving the correct magazine version or to opt to receive the digital version only.

Members are also asked to review their standing order for magazines and Transactions (The *International Journal of Maritime Engineering*).

I strongly urge members who have not already subscribed to consider *Ship & Boat International* and *Shiprepair & Maintenance*. They are first class magazines and are widely acknowledged within the world of our maritime industry as leaders in their field. The more copies sent to members means larger circulations, which increases the Institutions income which will be invested into your RINA. Details of the magazines are held on the website.

I would ask all members to check and update their personal data given on their My RINA page or by email to membership@rina.org.uk. This ensures that you receive your benefits and will assist in journals not being sent to the incorrect address which increases administrative costs with regards to postage and printing.

Chief Executive

USE OF THE RINA CREST

The Council has agreed that members may display the RINA crest on literature, website etc, under the following strict conditions:

- Members must request permission to use the crest, and state where it will be used.
- Only the version of the RINA crest provided by the Institution may be used. No variation or addition may be made to the crest.
- Members displaying the RINA crest are also required to display their membership of the Institution in text and by the use of the appropriate post-nominals.
- The RINA crest may only be displayed on a company website where the company is owned by the member or is a Corporate Partner member of the Institution.
- The RINA crest must not be used in a way as to state or imply the Institution's endorsement of a product or service provided by the member.

New Members Wanted

Dear Member,

Online meetings and conferences have enabled us to reach out and maintain our communication during 2020, which has been a fantastic tool, but we have missed the face-to-face meetings.

I am writing to ask for your support in encouraging your colleagues and students, where applicable, to follow your lead in becoming a member of the Royal Institution of Naval Architects. They will enjoy the benefits of membership and being part of the world's leading professional institution for those involved in the design, construction and maintenance of marine vessels.

I would be grateful if you could email the name, position and email address of your colleagues who you wish to would introduce as a member.

Please send you email to hq@rina.org.uk

THE ROYAL INSTITUTION OF NAVAL ARCHITECTS

2020

rina.org.uk

EILY KEARY AWARD

RINA is committed to ensuring that all individuals, regardless of gender, faith or ethnicity, have equal opportunity of being part of the global maritime community.

To raise awareness on this important topic RINA is launching the 2020 Eily Kearly Award.

The award will distinguish an individual, company, or organization who has contributed to increasing **equality, diversity and inclusion** in the maritime industry.

HOW TO PARTICIPATE?

Nominations may be made by any member of the global maritime community. Individuals may not nominate themselves, although employees may nominate their company/ organisation.

Nominations should include a 750 word summary, describing the nominee´s contribution towards the advancement of equality, diversity and inclusion in the maritime industry.

Nominations are open until the 31st January 2021.
Online at: **www.rina.org.uk/EilyAward**
Or, by email: **EilyKearyAward@rina.org.uk**

A panel of members of RINA will deliberate and the winner will be announced at RINA's Annual Dinner.

For queries about this Award please contact the Chief Executive at: **hq@rina.org.uk**

NEWS FROM THE BRANCHES AND SECTIONS

New South Wales Section

Sean Langman, Managing Director of Noakes Group, gave a presentation on *Ferry Radar Preservation: a Link to a Once-working Harbour* as a webinar hosted by Engineers Australia using the WebEx platform with Phil Helmore as MC on 2 September and attracted 70 participating on the evening. The presentation was recorded and is now available on the RINA YouTube channel.

Robert McMahon, Marine Engineer, Michael Kelly, Pilot, Port Authority of NSW, Bernie Farrelly, Project Manager, Tas Bull Seafarers Foundation, and Sr Mary Leahy, Stella Maris Chaplain and Regional Coordinator for Oceania, gave a presentation on *Cruise Ships and COVID-19* as a webinar hosted by the Institute of Marine Engineering, Science and Technology in London using the Panopto platform on 14 October. The President of IMarEST, Kevin Duffy (in Germany at the time!) MCed the event and provided the keynote speech. The presentation attracted 147 participants on the evening; it was recorded and is now available on the RINA YouTube channel.

Engineers Australia has finally agreed that copies of presentations recorded using their WebEx software platform can be transferred to RINA and uploaded to the RINA YouTube channel. As a result, the following presentations (previously recorded) are also now available on the RINA YouTube channel:

- *Design and Construction of the RAN's New Hunter-class Frigates*, presented by Levi Catton, Managing Director/SEA5000 Technical Advisor Ship Integration, Gibbs & Cox Australia, as a webinar hosted by Engineers Australia on 20 May 2020.
- *Investigation of Sediment Transport Processes near Tidal Energy Devices*, presented by Christelle Auguste, PhD Candidate, Australian Maritime College, as a webinar hosted by Engineers Australia on 3 June 2020.
- *RSV Nuyina: Australia's New Icebreaking Research and Supply Vessel*, presented by Clive Evans, Maritime Systems Lead-Research Supply Icebreaker Project, Australian Antarctic Division, as a webinar hosted by Engineers Australia on 1 July 2020.

Phil Helmore

London Branch

Nov 20 – In this presentation, '*The role of the 'Marine Warranty Surveyor (MWS) in Offshore Wind Farm Construction*' was discussed by Jonny Logan, CEO, Global Maritime covering the scope of the Marine Warranty Surveyor, the key stakeholders and the methods of execution. Some of the key differences between Offshore Wind projects and the Oil & Gas scopes, for which the MWS has traditionally been required, will be highlighted; and their impact on the MWS service provision, discussed." This event was well attended and led to an interesting discussion regarding managing the risk and the relationship between the Insurer, Assured and the MWS, and how the Naval Architect and Maritime professional adds real value to the project and critical assets.

Dec 20 – '*Machine Learning: Friend or Foe*' by Enrico Anderlini, senior Research Associate in Naval Architecture, University College London (UCL). Over the past decade, the interest in the application of machine learning to the maritime sector has grown dramatically. Potential uses include ship power predictions, energy management optimisation, control systems design and even ship design with machine learning being touted to bring about a revolution in terms of productivity. However, is the adoption of machine learning truly advantageous in all cases? In the first part of this event, we will present some of the lessons we have learnt by applying machine learning solutions for the operation of underwater gliders, a type of autonomous underwater vehicle. In the second part, we will open the discussion to the floor to continue the controversial comparison between machine learning and classical dynamic modelling solutions, hoping to hear different case studies.

Scottish Branch

Nov 20 - "*How Digital Technologies can keep Businesses Afloat During and Post-lockdown*" by Gordon Semple – Innovation Business Leader & Hugh Welsh – Digitalisation & Systems Manager, Booth Welsh. This was a joint branch presentation with the IMarEST.

As companies globally reframe their world on the exit from lockdown and continue to the future state of the "new normal", the list of challenges prior to the global pandemic remain and a few others have been added. In this lecture, we will share our knowledge & experience of industrial digitalisation as well as providing a practical insight into what can be achieved now and going forward. Some insightful and interactive demos were presented to stimulate thinking and highlight some real, practical use cases addressing several key themes/ challenges, such as Productivity Gain – getting more out of your assets (people and plant), Environmental impact, Manage the skills challenge using Virtual Reality & Augmented Reality technology.

Dec 20 – In this presentation Professor Colin Moffat, Chief Scientific Advisor,

Marine Scottish Government discussed '*Nano to Macro, Shallow to 10,984m, Vast & Essential for Life on Earth*'. This was a joint RINA Scottish Branch and IESIS Meeting and was a really engaging lecture focusing on the criticality of the ocean to life on Earth, as well as the wellbeing associated with living near the coast, are now well recognised. Significant, and immediate, interventions are required if tipping points are to be avoided. Management actions are being taken, be they marine protected areas or changes in fishing practices. However, the plan must go further based on various international agreements, including the UN Sustainable Development Goals and the UN Decade of Ocean Science for Sustainable Development (2021 – 2030). By acting now, there is a future when the ocean will be less impacted and the current decline in state is reversed.

North East Joint Branch

Nov 20 – '*The future of maritime transportation until 2050*'. This talk was the 88th presentation of the annual Andrew Laing prestige lecture which was postponed from May 2020. It was presented by Dr Cleopatra Doumbia-Henry, President of the World Maritime University, Malmo.

Nov 20 – '*Offshore Wind Power*' by Rupert Berryman

Dec 20 – '*IMO Greenhouse Gas Targets for 2050*' by Edward Fort, Head of Engineering, Marine and Offshore at Lloyd's Register. The initial GHG strategy envisages, in particular, a reduction in carbon intensity of international shipping (to reduce CO_2 emissions per transport work, as an average across international shipping, by at least 40% by 2030, pursuing efforts towards 70% by 2050, compared to 2008), and Edward discussed the IMO Greenhouse Gas Targets for 2050.

Dec-20 – In this presentation '*Second Generation Intact Stability Criteria*', by Andy King, Lloyd's Register discussed the Second-Generation Intact Stability Criteria are a newly developed approach for understanding the dynamic stability characteristics of a ship. They consider five failure modes: parametric rolling, pure loss of stability, excessive acceleration, surf-riding/broaching and the dead ship condition. The criteria were finalised earlier this year at the IMO and they include a tiered approach of increasing complexity.

This presentation will introduce the concept of the new criteria, how they have been developed, give an overview and some examples of the failure modes and then discuss the implications for industry.

Western Joint Branch

Nov 20 – '*Coastal Erosion and Port Structures*' by Dr Jane Smallman, 114th President of the IMarEST whereby she discussed the challenges of any port design (new or re-developed). The port needs to be effective for the entry and exit, and mooring of vessels. Large ships need sufficient depth, which may require dredging. Many cargo operations, including container ships, cruise liners and LNG carriers, impose tight limits on vessel motions at the berth. The construction of large breakwaters and/or dredging activities, both expensive operations, may have significant environmental impacts. Factors such as these result in the designer balancing several conflicting requirements. These difficulties are compounded by the wide range of meteorological, ocean and geological conditions. These challenges apply to new ports and existing facilities. In all cases the port design will need to be optimised to minimise cost, whilst considering the requirements for safe operation. The design also needs to be sustainable under climate change, and minimise any adverse impacts on the environment. A range of techniques can be used to evaluate and optimise the design of the port and address these challenges. This webinar will explore some of these techniques, and give examples from port developments across the world.

Dec 20 – In this presentation, '*Energy Efficient Commercial Shipping Speaker*' by John Buckingham, Chief Mechanical Engineer of BMT Defence & Security UK Limited gave a lecture discussing how the recent availability of regular parametric data on ship's machinery and behaviour has opened up new possibilities to develop and apply active mathematical models of ship propulsion systems. The BMT-led VTAS project has combined large publically available metocean datasets with onboard ship performance data to build the best possible models for specific vessels and the seagoing conditions experienced. These models enable the fuel-saving benefit of energy saving technologies (EST) to be assessed and thus support a business case for their introduction. This lecture presents the potential benefits of hydro-dynamic, wind and thermal based technologies for a 61,000dwt ship. An assessment of the benefits of wind-based technologies such as Flettner rotors, Wingsails and Turbosails is presented alongside those for an Organic Rankine Cycle-based technology. These studies provide the foundation for supporting a wider assessment of feasibility and economic viability of an EST installation. Adoption of EST would support the IMO's target to reduce the carbon intensity of international shipping by at least 40% by 2030.

THOUGHTS FOR THE MONTH

"When you want to know how things really work, study them when they're coming apart."

William Gibson

Southern Joint Branch

Nov- 20 – In this presentation '*Second Generation Intact Stability Criteria*', by Andy King, Lloyd's Register discussed the Second-Generation Intact Stability Criteria are a newly developed approach for understanding the dynamic stability characteristics of a ship. LR considered five failure modes: parametric rolling, pure loss of stability, excessive acceleration, surf-riding/ broaching and the dead ship condition. The criteria were finalised earlier this year at the IMO and they include a tiered approach of increasing complexity.

This presentation introduces the concept of the new criteria, how they have been developed, and gives an overview and some examples of the failure modes and then discusses the implications for industry.

United Arab Emirates Branch

Dec 20 – This three-module lecture included:

a. "*Installation of Largest Single Module Topside – Design Engineering*" by Arjun K Bharath, Naval Architect, NPCC, discussed the recently fabrication and installation of a large single module gas processing topside in offshore, Abu Dhabi. This ~32,000t topside won the Guinness Record for the Largest single module topside installed on a steel jacket. The large size and weight of this topside presented unique requirements with regard to installation cargo barge and equipment. A new cargo barge was designed and built to meet the needs of this project. This presentation provides insight into the process behind design of this cargo barge leading to the installation of this large topside by float-over method.

b. '*Overview of Offshore Pipeline Engineering*', by Atanu Datta, Director, Adon Tech, Aberdeen, UK & Sub Sea Pipe Line Expert and Consultant of Great Waters Maritime LLC. The presentation deals with the overview of life of subsea pipeline, from cradle to grave. It discusses the requirement of a subsea line in an oil filed, design parameters that need to be considered. The presentation also covers the installation aspects, maintenance and decommissioning as well.

c. '*Automation in Rigging Design for Offshore Heavy Lifts*' by Sumit Moharir & Gaurav Borkar, Installation Engineers, NPCC and the lecture discussed rigging design and allocation for numerous structures becomes one of the key aspects for successful lifted installations. This presentation provides an insight to the challenges faced in the rigging design/inventory management and discusses the solutions adopted.

TECHNICAL COMMITTEE NEWS

Maritime Innovation Committee

The Maritime Innovation Committee is tasked by the RINA Council to make the collective technical expertise of the Institution available for the benefit of the profession and society by contributing to the development and use of innovative technology in the maritime industry.

The Committee has identified a number of key disruptive technologies that it believes will have a significant impact on the maritime industry now and in the future.

The committee is now looking into the following aspects in more detail with a view to holding an online workshop next year on these topics.

- 3D printing to support construction, repair, and in-service
- Modelling and simulation to improve efficiency and effectiveness of marine vehicles (including use of AI for optimisation)
- Concept Design Process
- Digital shipyard
- Advanced (digital) manufacturing – Industrial Revolution 4.0
- Digital Twin – use of data acquisition and analysis from the ship / platform to maximise efficiency of operations and effectiveness of future designs
- Virtual and Augmented Reality (VR & AR) in design, training, and operational contexts
- Power system technologies to reduce use of fossil fuels and reduce emissions
- Greater automation, progressing to fully autonomous / unmanned systems to remove people from harm's way
- Novel inspection techniques

Each working group has its own page on the Maritime Innovation Group forum at Maritime Innovation Group (rina.org.uk) reporting on its work and enabling comment and contribution by members of the maritime community.

2021 EVENTS PROGRAMME

PLEASE NOTE

Due to the rapidly changing nature of events, conference dates and format may be subject to alteration

SURVEILLANCE, SEARCH, RESCUE AND SMALL CRAFT CONFERENCE
13-14 January 2021,
London,
UK

SHIP CONVERSION, REPAIR AND MAINTENANCE
26-27 January 2021,
Online Conference

FULL-SCALE SHIP PERFORMANCE
10-11 February 2021,
Online Conference

WIND PROPULSION 2021
20-22 April 2021,
London,
UK

DRY DOCK COURSE
2-5 March 2021,
London,
UK

SHIPS' LIFE-CYCLE CONFERENCE
March 2021,
London, UK

MARITIME INNOVATION/ EMERGING TECHNOLOGIES
March 2021,
Online Conference

THE ROAD TO MARITIME AUTONOMY
8 April 2021,
London, UK

ANNUAL DINNER
29 April 2021,
London, UK

HISTORIC SMALL SHIPS
June 2021,
Cumbria,
UK

WARSHIP 2021
2-3 June 2021,
Bristol, UK

ICCAS 2021
28-30 September 2021,
Yokohama,
Japan

CONTRACT MANAGEMENT FOR SHIP CONSTRUCTION, REPAIR & DESIGN
October 2021,
London, UK

WATERJET PROPULSION 2021
October 2020,
London, UK

POWER & PROPULSION ALTERNATIVES FOR SHIPS
October 2021,
Online Conference

PROTECTING MARINE ENVIRONMENT THROUGH DESIGN, CONSTRUCTION AND OPERATION
November 2021,
London,
UK

Designatory Letters

Members may signify their membership of the Institution by the letters after their names:

- FRINA
- MRINA, AssocRINA
- AMRINA
- StudentRINA

In doing so, they demonstrate that they have achieved or are working to achieve the high standards of professional competence demanded by the requirements for membership, and recognised by the international maritime industry. By doing so, they also demonstrate their commitment to maintaining those standards through their continuing professional development, and their acceptance of the Institution's Code of Conduct.

Membership of the Institution is an achievement, and we should promote and proudly display our membership of the Royal Institution of Naval Architects.

Chief Executive

PUBLICATIONS NEWS

Digital RINA

It is the policy of the Institution to make full and effective use of available IT and digital media to inform and engage with members of the Institution and the wider maritime community and beyond. It achieves this through its publications – Technical Magazines, Transactions, Conference Proceedings, eNewsletters, YouTube, and Social Media.

Social Media

The Institution's social media accounts on LinkedIn, Facebook, Twitter, and Instagram provide the opportunity to update members and others on the Institution's activities, and for members to engage with the Institution and other members of the maritime community.

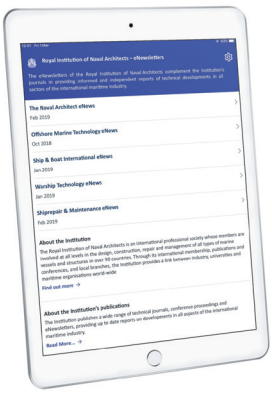
Technical Magazines

The technical magazines – *The Naval Architect*, *Ship & Boat International* etc – are published online and may also be viewed through the RINA Publications App which may be downloaded from the Google Play Store and Apple Store.

Technical Newsletters

The Technical magazines each have their own eNewsletters – *The Naval Architect eNews*, *Ship & Boat International eNews*, etc – publishing significant articles contained in the current issue and material which did not make it to the magazines.

The eNewsletters may be viewed online or though the RINA eNewsletter App, which may be downloaded from the Google Play Store and the Apple Store. Members and subscribers are advised through the eNewsletters and by App notification when a new issue is available for reading.

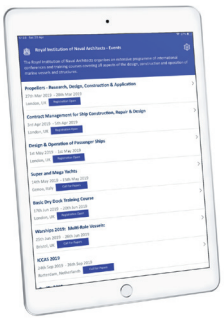


RINA eNews

RINA eNews is the Institution's regular email newsletter to members, reporting on the activities of members and the Institution. Occasional Special Issues of RINA News focus on Publications and Events.

Events News

Full details of the Events programme may be viewed online www.rina.org.uk/events_programme, or through the RINA Events App, which may be downloaded from the Apple Store and the Google Play Store.



Conference Proceedings

Delegates to RINA conferences may access the papers presented at the conference online, together with the associated Powerpoint presentation, through the Institution's Dropbox account. Selected presentations are published on the Institution's YouTube Channel.

YouTube

Over 40 videos of presentations at conferences, Section and Branch meetings may be viewed on the RINA YouTube Channel. More are being added on a regular basis and you can also subscribe to the YouTube Channel.

Transactions

The reports of scientific and technical research are published in the IJME. Members have online access to all papers published in the Transactions – IJME.

Publication in the IJME (4 issues per year) will also enable such papers to be published more quickly after submission and reviewing. Such papers will also benefit from the higher impact factor of the IJME.

We welcome papers from all sectors of the maritime industry.

RINA Affairs

Reports on the Institution's and members' activities and is the Institution's bi-monthly House Magazine. RINA Affairs may be read as a pdf file or online or on the RINA Affairs App, which may be downloaded from the Google Play Store and the Apple Store.

International Journal of Maritime Engineering

The Royal Institution of Naval Architects (RINA) has reached an agreement with the University of Buckingham Press (UBP) to publish its existing publication, the *International Journal of Maritime Engineering* (IJME). The first Issue under the joint-venture agreement will be published around April 2021 with quarterly Issues published thereafter.

Under the agreement, *IJME* will be published in both print and digital formats with the latter hosted online on UBP's journal platform and via its journal distribution and marketing partners. Submissions, editorial process and subscriptions will still be managed by RINA, with UBP's support, with UBP providing production, distribution, sales and marketing for all Issues.

The journal will undergo an initial design review along with registration at all major content repositories to ensure global indexing and availability of content. Subscriptions types will also be reviewed and expanded along with the availability of specific research content on an Open Access basis. Future subject-focussed special issues are also expected to be published.

Tom Chalmers, Managing Director of UBP's parent company Legend Times, commented: "As we continue our strategy to rapidly expand our range of journals and their global reach, it feels very timely to reach this agreement with RINA, who have their own exciting plans for the expansion of their content. We are delighted to begin working with them as a partner and look forward to developing and growing *IJME* over the months and years ahead."

Chris Boyd, CEO of RINA, commented: "'We are pleased to announce this partnership with the University of Buckingham Press, who share our vision in reaching out to a global audience. The Royal Institution of Naval Architects has published over 5,000 peer review technical papers in our transactions, and the *International Journal of Maritime Engineering* is the mainstay within our flagship; providing a forum for the discussion of technical and scientific issues regarding design, construction, research and development across all sectors of the maritime industry. We are looking forward to working with the University of Buckingham Press."

Members requested to join the CPD Assessment Panel

Members will be aware that the Institution's Code of Professional Conduct requires them to only undertake work for which they are competent. Such competence will be achieved and maintained by Continuing Professional Development (CPD). It is recognised that the activities which contribute to such CPD will vary for individual members, depending on their employment. Guidance on the types of activity which may contribute are contained in the Institution's Guidance on Continuing Professional Development.

It is a requirement that members maintain a record of the CPD activity they have undertaken, and that such records be submitted when requested by the Institution. Selected Members will be required to forward a Report of CPD Activity, for the previous 12 month period, as advised by the Secretariat. Information on the format of such Reports will also be provided. The Reports will be assessed by the CPD Assessment Panel, which reports to the Professional Affairs Committee. Following the review of CPD Activity Reports, members will be provided with feedback from the CPD Assessment Panel. The Institution does not set minimum hours or points, recognising that the CPD requirement and therefore activity will differ for each member. However, the feedback will comment on such factors the overall balance of CPD activity and advice on where greater focus might be appropriate.

Training and guidance on the review of Reports will be provided to members of the CPD Assessment Panel, and each member of the Panel will be asked to review and comment on 6-8 Reports per year.

Members who would be interested in joining the CPD Assessment Panel, or would like further information should contact the Chief Executive at hq@rina.org.uk

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

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Confederation of European Maritime Technology Societies

The Confederation of European Maritime Technology Societies (CEMT) is an independent confederation of professional institutions (those involved in education and professional development) and learned societies (those facilitating the exchange of information) in the field of maritime technology. It was founded as the West European Confederation of Marine Technology Societies (WEMT) in 1971, and reformed as CEMT in 2003, to embrace all maritime professional societies.in Europe.

Through its member Societies, CEMT is able to call upon the knowledge, skills and experience of over 35,000 professional naval architects, marine engineers and others in the field of maritime technology. It is therefore uniquely placed to contribute to the success of the European maritime industry.

The Institution is a member of CEMT and is represented by Trevor Blakeley FRINA, who is also Chairman of the CEMT Council. Information about CEMT is available on its website at www.CEMT.eu

CEMT Award

The CEMT Award is presented annually in recognition of the outstanding contribution to the success of the European maritime industry made by an individual, company or organisations.

Such contribution may be technological, political or economic, and may have been made over a period or by the introduction of a product or service.

Nominations

Nominations may be made by any member of the member societies of CEMT. Companies or organisations should have a European origin or have significant operations in Europe.

Nominations for the 2021 Award should be forwarded to the CEMT Secretary at richardbarwick1954@virginmedia.com to arrive before 15 March 2021.

CEMT on Linkedin

The CEMT Linkedin account provides an online opportunity for members of the European maritime industry and community to raise and discuss professional matters of common interest on all topics, including design, construction, operation and regulation of maritime vessels and structure.

International Conference on Post Graduate Research & Development

The first CEMT international conference for Post Graduates, organised by the Polish Society of Naval Architects and Marine Engineers (KORAB) and the Institution on behalf of CEMT was held in Gdansk, in Apr 2020. Papers presented at the conference may be downloaded from the CEMT Conferences folder on Dropbox.

This conference will be an annual online event, free for Post Graduate speakers and delegates.

THOUGHTS FOR THE MONTH

The ideal engineer is a composite ... He is not a scientist, he is not a mathematician, he is not a sociologist or a writer; but he may use the knowledge and techniques of any or all of these disciplines in solving engineering problems.

N. W. Dougherty, 1955

MEMBERS IN THE NEWS

City of London Engineering Hall of Fame

Sir John Parker FRINA FRAEng is one of seven engineers to be inducted into the newly launched City of London Engineering Hall of Fame. His inclusion recognises his significant contributions to engineering, shipbuilding and the City. Sir John Parker was President of the Institution from 1996 to 1999.

Members of the Engineering Hall of Fame are selected from the seven London Livery Companies with links to engineering, and the inaugural seven members span 450 years of engineering influence on the City as industrialists, designers, educationists, practical scientists, entrepreneurs, problem solvers, wealth creators, leaders and philanthropists.

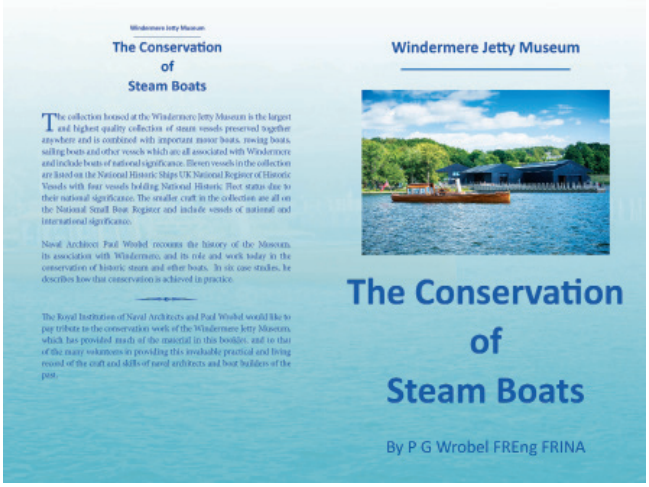
PUBLICATIONS

The Conversion of Steamboats

Paul Wrobel, FRINA

"Nowhere in the world is there anything to equal the stunning collection of Lakeland Vessels which the Pattinson family brought together on the shores of Windermere"

Director National Historic Ships.



The collection housed at the Windermere Jetty Museum is the largest and highest quality collection of steam vessels preserved together anywhere and is combined with important motor boats, rowing boats, sailing boats and other vessels which are all associated with Windermere and include boats of national significance.

Eleven vessels in the collection are listed on the National Historic Ships UK National Register of Historic Vessels with four vessels holding National Historic Fleet status due to their national significance. The smaller craft in the collection are all on the National Small Boat Register and include vessels of national and international significance.

Naval Architect Paul Wrobel recounts the history of the Museum, its association with Windermere, and its role and work today in the conservation of historic steam and other boats. In six case studies, he describes how that conservation is achieved in practice.

A copy of the book has been donated to the Institutions library by the author. The book may be purchased online via amazon.co.uk and additionally through Amazon sites for Germany, France, Italy and Spain.

More information about the Museum is available at: https://windermerejetty.org/

The Science of Sailing: A complete guide to the physics of sailing and the naval architecture governing the performance of sailing yachts – Volumes 1-4

About the Author

Most Naval Architects have encountered Peter van Oossanen's work, even if we do not immediately recall the name. Peter is best known for his role in the design of the winged keel for the America's cup 12m yacht *Australia II*. A generation of Naval Architects learned the fundaments of Resistance and Propulsion from "*Principles of Naval Architecture Volume II*", co-authored by Peter.

Dr. Van Oossanen has embarked on an ambitious series of books on "*The Science of Sailing: A complete guide to the physics of sailing and the naval architecture governing the performance of sailing yachts.*" To date, four volumes have been completed:

Part 1, "The Attainable Speed Under Sail"

Chapter 1: Introduction
Chapter 2: Preliminary Notions and First Considerations
Chapter 3: The Velocities and Forces that Define Sailing Performance
Chapter 4: The Attainable Speed of Sailing Craft

Part 2: "The Origin And Nature Of Fluid-Dynamic Lift and Drag"

Chapter 5: Fluid-Dynamic Lift and Explanatory Theory
Chapter 6: Fluid-Dynamic Drag and Its Components

Part 3, "Phenomena and Drag Originating From The Boundary Layer"

Chapter 7: Phenomena and Drag Originating From The Boundary Layer

Part 4, "Phenomena and Drag Originating from the Air-Water Interface"

Chapter 8: Phenomena and Drag Originating from the Air-Water Interface
Chapter 9: Wave Pattern and Drag in Water of Restricted Depth

The books are for sale on: https://vanoossanenacademy.nl/science-of-sailing/

LETTERS TO THE EDITOR

William Henry Gard of Fishers, Ship Design

Hello,

I wonder if you might point me in the right direction. I am the great granddaughter of William Henry Gard of Fishers era. My siblings have been trying to find out more about him. We have various fragments of information. I do have one paper WHG wrote regarding welding on Warships.

However, we would like to know more about what ships WHG designed and his correspondences. We understand for instance he was involved in the dreadnought design and saving the *Victory* from being sunk. I think I read somewhere he also designed The Queen Elizabeth ship.

Are you able to offer any direction?

Thanks so much for your time.

Gina Wimberly-Gard
Answers to hq@rina.org.uk

Ships & Shipbuilders – Pioneers of Ship Design and Construction

Colleagues and the many members with an interest in the history of ship design and construction will be saddened to hear of the death of Fred Walker, FRINA.

Naval architect, shipbuilder and appointed Naval Architect at the National Maritime Museum, Fred Walker was a regular contributor to *RINA Affairs* with his series of articles "*Pioneers of Ship Design*". Those articles formed the basis of his later book "*Ships & Shipbuilders - Pioneers of Ship Design and Construction*", published in 2010 to celebrate the 150th anniversary of the Institution.

In his preface to the book, Fred wrote:

"*The Royal Institution of Naval Architects has given service to the 'Shipwrights' of the world for 150 years. It has contributed significantly to my professional life, and on this special anniversary, I am pleased to have the opportunity of acknowledging the achievement of this illustrious body From time to time, it is useful to stand back and review the lives and works of naval architects, shipbuilders, engineers, scientists, academics and a host of others who have been instrumental in the development of safe ships for the sea.*"

Fred Walker

In the Introduction to the book, the then Chief Executive wrote:

The design and construction of ships has evolved over thousands of years, to produce the largest and most complex moveable structures ever built by mankind. Without them to provide for the safe and efficient transport and recovery of the world's raw materials and products, modern society as we know it could not exist. However, in this evolution, the 18th, 19th and 20th centuries saw perhaps the most dramatic and significant changes to the design and construction of ships, when it became more of a science than an art. Such changes happened also at a time of great social and political change.

The design and construction of ships is essentially a team activity conducted by professional engineers in their respective fields and disciplines, in many countries. However, during this period, a number of individuals made a significant contribution, and can rightly claim to have been "pioneers of ship design and construction". In most cases, whilst their achievements and legacy may be familiar to those involved in the design and construction of ships, the individuals themselves are less well known, if at all.

In his 190 pen portraits of such men and women, Fred Walker not only describes their achievements, but in doing so charts the development of ship design and construction, seen in the context of the social and economic change which shaped their lives and work.

Trevor Blakeley