



SNAME

THE INTERNATIONAL COMMUNITY FOR MARITIME AND OCEAN PROFESSIONALS



Richard D. Delpizzo (American Bureau of Shipping) was honored with the SNAME Honorary Vice President award. Two Honorary Vice Presidents are chosen each year from the list of SNAME Council members who have served at least twelve years on the Council. Recipients hold the title for life.

SNAME NEWS

December 2024

In This Newsletter

- President's Corner1 & 2
- HQ Update3, 4, 5 & 6
- Membership.....7 & 8
- Member Profile9
- Events10, 11 & 12
- Technology & Research..... 13
- Publications14
- Career Center.....15 & 16
- Corporate Affiliates17



It's hard to believe just how quickly my term as President has gone by. It's been an honor to lead this organization, and I'm thankful for your support over the past two years.

I'm really excited about the changes we have made to streamline and flatten the SNAME leadership structure

and operating model through the elimination of the Executive Committee and a reduction in the size of the Council. This change should improve our agility, speed decision making, and better enable SNAME to respond to industry and member needs. Our Bylaws have been updated to reflect this change, but there is still a lot of work to be accomplished over the next several months to transition to the new organization in accordance with a detailed plan of action. Over the next several weeks, the team and I will be communicating with those who will no longer be members of Council and ensure that they understand this change in roles and responsibilities. This change does not lessen the importance of people's role as a leader in SNAME. Your work as Section, Committee, and Panel Chairs is very important to the growth and sustainment of SNAME, and I appreciate your continued commitment to your work in these areas. A flattened structure should in fact improve communications and facilitate decision making. We will also work hard to improve our communications to all officers and members of SNAME and will continue to be transparent in all actions that we are taking.

Our new Executive Director Elizabeth Bouchard has been onboard for about 6 months and has already made significant improvements to SNAME operations. Liz has identified and resolved several operational cost driving issues to include changing banks, implementing a cyber security system to protect member data, shifting all virtual communications to Teams, and establishing a master filing system in headquarters to maintain historical information in a searchable format. These and other changes will reduce system redundancy and cost of operations. Liz has also built a staff that has skills and experience in membership development, process development and quality, publishing, and events

management. Liz will soon post a message on the SNAME website and one of our newsletters introducing the new members of staff and their roles and responsibilities. The staff will now be better able to manage SNAME's many programs, symposia, and publications as well as to deal with day-to-day tactical issues while Liz and the President build relationships with industry and university leaders and find ways to grow membership and raise funds through grants, sponsorships, and industry affiliations.

There is a consistent drumbeat from our members that our website is out of date and difficult to maneuver around. Additionally, our membership application and renewal processes are also difficult to use. Upon investigation, Liz and I discovered that our IT systems, including the website, are a quilt work of many different software applications, some of which are redundant and most of which have not been updated in over seven years and are no longer supported by their developers. We determined that it is time to update and simplify SNAME's many IT systems including the website. There will be an initial cost associated with the upgrades, but we will eliminate redundant tools and improve the usability and flexibility of our IT systems.

The Education and Knowledge Management teams have been working on opportunities to provide training to newly graduating naval architects and non-naval architects to help speed their skill set development as maritime and naval engineers as well as to improve the content of journals and texts with information relevant to industry and membership needs. Knowledge Management volunteers and Staff have been jointly working on publishing several new and improved textbooks as well as catching up the backlog of Transactions. Please take some time to check out our new textbook offerings--just in time for Christmas! The T&R Committee and its many panels have been working hard to develop and share new and emerging technologies. They continue to be the source for many of the panel discussions and papers at our annual SNAME Maritime Convention and our journals. This work should ensure that SNAME remains the leading technical society for relevant information as well as to grow membership and revenue. Speaking of membership, special thanks to our Membership Committee and staff for their work to grow membership. While our total membership remains

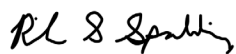
PRESIDENT'S CORNER

relatively flat, I credit the hard work of this team for their work to remind people to renew their membership as well as to convince new members to be a part of this great organization.

If I had more time, I would have worked with the Vice President of Planning and Public Policy to re-establish our Public Policy Committee. I would also have liked to re-engage the ship owners and operators. There is a lot of opportunity in these spaces for SNAME and with Liz's experience I'm confident that she will help us craft a path to growth in both areas in the coming years.

We've been through a lot over the past two years. As I pass the helm to President Elect Rich Mueller, I'm happy to report that SNAME is on a steady course with all systems operating well. There will always be things to do to ensure that SNAME continues to be "The Society of Naval Architects and Marine Engineers" serving all maritime professionals across the industry. I wish you all a safe and enjoyable holiday season as well as a healthy and prosperous new year.

Respectfully,



Rick Spaulding

President

president@sname.org



FROM THE EXECUTIVE DIRECTOR

MY SIX-MONTH MARK

December marks six months in my role as Executive Director. As the year ends, I want to highlight some key accomplishments. First, however, I'd like to extend my sincere appreciation to SNAME President Rick Spaulding. It is always challenging stepping into a new job and organization. Since day one, Rick has served as a mentor, never hesitating to share his extensive knowledge of SNAME or provide feedback and guidance as I learned the organization and began to navigate through issues. Rick and I have truly worked as a team. So, Rick, as your term as President ends, I'd like to say thank you for your support and that I think we've been able to take some meaningful steps together to ensure that SNAME remains a strong organization into the future.

HEADQUARTERS STAFF

Filling and realigning staff positions at SNAME Headquarters (HQ) to better support the needs of the Society has been a priority for me. Thus, after months of conducting interviews, I am excited to announce that my hiring initiative is complete, and HQ is now fully staffed. In addition, HQ departments are now functionally aligned with SNAME's volunteer structure to allow for better support of Functional Vice Presidents, Regional Vice Presidents, and membership. This realignment supports SNAME's new streamlined governance structure that Rick Spaulding explained.

Very importantly, you, our membership and readers, must know who at HQ can answer your questions and how to best contact them. The HQ staff organization chart (page 4) provides this information. Note that departmental email addresses are monitored by more than one person and are intended to ensure as timely response as possible.



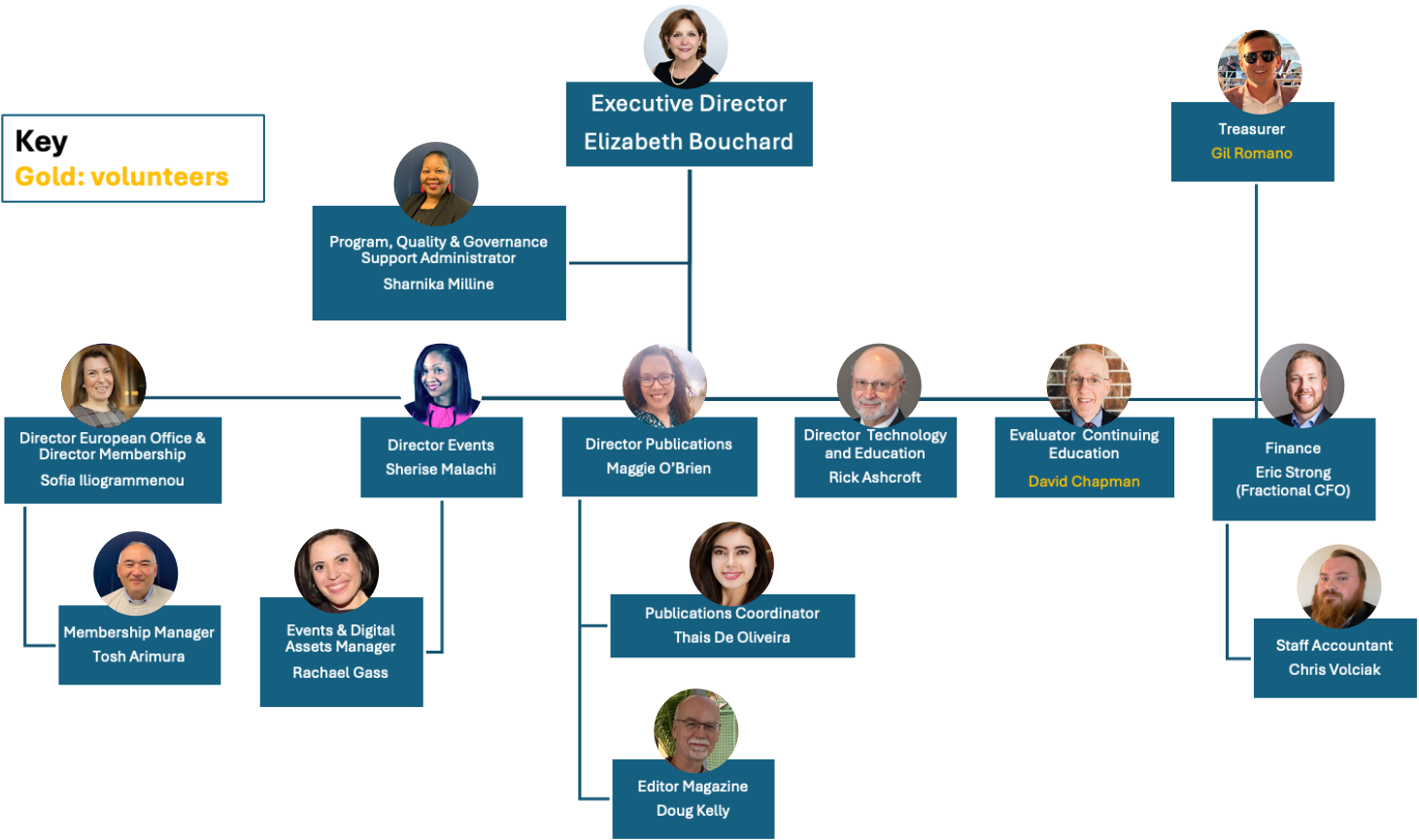
**SNAME HQ WILL BE
CLOSED 23 DECEMBER
THROUGH 1 JANUARY
FOR THE HOLIDAYS.**

For urgent matters, please call
703-997-6701 or 703-997-6703.

HQ UPDATE

SNAME STAFF

Key
Gold: volunteers



SNAME HQ EMAIL ADDRESSES

Membership.....memberservices@sname.org
 Events.....events@sname.org
 Publications.....publications@sname.org
 Scholarships.....scholarships@sname.org
 General Inquiries.....sname@sname.org
 Finance.....finance@sname.org

SNAME TEAMS PHONE NUMBERS

Name	Phone Number	Email Address
Tosh Arimura	(703) 278-3620	tarimura@sname.org
Elizabeth Bouchard	(703) 997-6703	ebouchard@sname.org
Rachael Gass	(703) 997-6710	rgass@sname.org
Sofia Iliogrammenou	(703) 997-6712	siliogrammenou@sname.org
Sherise Malachi	(703) 278-3619	smalachi@sname.org
Sharnika Milline	(703) 997-6705	smilline@sname.org
Maggie O'Brien	(703) 997-6713	mobrien@sname.org
Thais De Oliveira	(703) 278-3616	thaisd@sname.org
Chris Volciak	(703) 997-6707	cvolciak@sname.org



Left to right: Elizabeth Bouchard (holding the lyre) and John Kokarakis

MEETING MEMBERS

Another top priority of mine has been getting to know our members, corporate affiliates, and sponsors, including by participating in SNAME Section events and industry conferences. In fact, I am writing my contribution to this newsletter on my return flight from Greece, where I attended the Wind Propulsion for Ships workshop co-sponsored by SNAME's Greek Section and RISE (the "Research Institutes of Sweden"). The event was a resounding success. It was well attended, informative, and offered excellent networking opportunities. I was honored to get to know SNAME Greek Section members, including John Kokarakis (Bureau Veritas and Greek Section Chair) and Professor Apostolos Papanikolaou (National Technical University of Athens), both whom were instrumental in organizing the workshop. I also was able to spend some extended quality time with HQ staff member Sofia Iliogrammenou, who is based in Greece. I departed with a better understanding of how SNAME HQ can collaborate with and support its Greek Section – and this was invaluable. I also left with an enhanced understanding of Greek culture, particularly the significance of the lyre, an ancient stringed musical instrument that represents the ideals of beauty, order, and harmony.

Since July I have participated in the awards ceremony for Andrew Kendrick hosted by the Canadian Atlantic Section in Ottawa, Canada; attended the Great Lakes and Great Rivers Section Fall meeting in Ann Arbor, Michigan; liaised with Gulf Coast members at the SSI Worldwide Shipbuilding Conference in Biloxi, Mississippi and at Workboat in New Orleans, Louisiana; and had the opportunity to meet SNAME Pacific Northwest Pacific Section members at the Marine Log Ferries conference in Seattle, Washington. Each trip facilitated strengthened relationships and unique opportunities for collaboration.

UPGRADED IT INFRASTRUCTURE

In the 21st century, a sound information technology (IT) infrastructure is required for a professional association, such as SNAME, to function well. Having a fit-for-purpose IT infrastructure is a balancing act. The challenge is in ensuring that it is updated and maintained while avoiding overbuilding it with unnecessary, costly upgrades. Unfortunately, when I came aboard, I found that the SNAME IT infrastructure was suffering from a lack of maintenance and could not adequately support the needs of the organization. Updates were needed to our core association software, laptops, IT network, and phones. Their status is as follows.

The 15-month upgrade of our core association software continues. Although much of the work done so far involves cleaning up the data on the backend of the system, beginning in January 2025 there should be noticeable improvements to user experience in joining SNAME and renewing memberships as the associated forms have been reconstructed. The next noticeable improvement will be to the SNAME Communities. Summer 2025 is the target date for completing the entire project. Completed projects include the installation of high-speed Internet, cybersecurity upgrades to our IT network, and a transition to a more cost effective phone system that integrates with Microsoft TEAMS.



Participants at the Wind Propulsion for Ships Workshop in Greece on 20 November 2024.

THE BUDGET

I've been laser focused on the budget, finding ways to reduce costs without impairing operations. As part of this effort, I've worked closely with our Finance Team to eliminate banking fees by moving our monies to an institution that does not charge a fee for our operating accounts. This has resulted in significant savings in our operating budget. I'm in the process of investigating alternatives for insurance coverage – those that were specifically developed for associations with sections, and recently “rightsized” the copier to provide savings in monthly leasing and maintenance fees. Know that my quest to eliminate inefficiencies and save money without negatively impacting the Society is ongoing.

IN CONCLUSION

I look to 2025 confident that the changes that we have made at HQ over the past six months will provide what is necessary for a vibrant, innovative, effective, and efficient SNAME for years to come. I want to thank our volunteers and staff for their dedication and work in supporting and implementing the various initiatives over the past six months. My very best wishes to all for a happy and holiday season and new year.



Elizabeth Bouchard

Executive Director

ebouchard@sname.org

MEMBERSHIP

2024 50-YEAR MEMBERS

In 2024 more than 30 members, representing 15 out of 20 professional Sections, reached the 50-year membership milestone. We hope that they continue their legacy of inspiration to all SNAME members for many years to come. Congratulations to all of them!

Pierre Balleraud, Western Europe

Bruce Belousofsky, Philadelphia

Malcolm Ian Comyn, Canadian Pacific

Indranath Datta, Texas

Antonello Gamaleri, Italian

John F. Hatley, Texas

Edward F. Hoffman, New York Metropolitan

John Hoyt III, Chesapeake

John H. (Jack) Leary, Sr., Gulf

Thean Ee Lim, International (Singapore)

Roald T. Lokken, Texas

Joseph W. Lovett, Texas

Athos Malliris, Greek

Dawson “Dusty” Miller, Canadian Atlantic

Lu Mulino, Gulf

Alan Nierenberg, Pacific Northwest

Dwight Nunley, International (Singapore)

Nnamdi Victor Ozobia, International (Nigeria)

William A. Plice, Pacific Northwest

James Price, Hampton Roads

Anil Raj, Gulf

Scott Richards, Texas

David L. Smith, Western Europe

Charles Springett, Chesapeake

Robert Tagg, Northern California

Anil Kumar Thayamballi, Northern California

E David Tietje, Pacific Northwest

Brian Trenhaile, Southwest

Michael S. Triantafyllou, New England

David Tuturea, Texas

Laurence (Larry) Wade, New England

Henry Woods, New England

2024 & 2025 MEMBERSHIP PROGRAMS

The end of the year is a time to reflect on the year gone by and set goals for the upcoming year. It's also a good time to give back. SNAME's Awards, Medals, Fellows, and Scholarships Programs offer abundant opportunities to recognize and support your peers and students in the new year.

Key dates for 2024-2025 SNAME Programs include:

- **1 February:** Applications for [Graduate Scholarships](#) Due
- **28 February:** [Spring Cycle Fellows](#) Nominations Due
- **4 March:** Applications for the [Dr. James A. Lisnyk Student Ship Design Competition](#) Due
- **31 March:** [Awards and Medals](#) Nominations Due
- **1 April:** [Faculty Advisor of the Year Award](#) Nominations Due
- **1 April:** Applications for the [Student Grant Program](#) Due
- **1 June:** Applications for [Undergraduate Scholarships](#) Due
- **15 June:** Nominations for [Student Paper Awards](#) Due
- **Early July:** [Fall Cycle Fellows](#) Nominations Due
- **15 October:** Applications for the [Student Grant Program](#) Due

Visit sname.org for more information and eligibility criteria for these programs. We are looking forward to your participation! Donations to these programs are also always welcome.

NEW & REINSTATED MEMBERS NOVEMBER 2024

JOIN US IN WELCOMING:

Marc Gerard Caramondanis, Marine Consultant

Marc Anthony Carlo, Naval Postgraduate School

Lucas Brian Castillo, Massachusetts Maritime Academy

Patrick W. Creekmore, EDF Renewables

John Kellog Dasch, Det Norske Veritas

Mara Miranda DuVernois, Resolve Marine

Brock Christopher Fitzell, Massachusetts Maritime Academy

Gerard Flynn, United States Merchant Marine Academy

Koray Goksel, University of Strathclyde

Athanasios Grasopoulos, Thenamaris Ships Management Inc.

Riley Lauren Haas, Webb Institute

Rodrigo Horta, Genoa Design International

Tristin Jones, University of Alaska Fairbanks

Matthew John Jugan, Massachusetts Maritime Academy

Evan Kawabata, HydroComp, Inc.

Andrew Richard Kerst, United States Coast Guard

Michalis Koilakos, National Technical University of Athens

Jacob Neil Lamoureux, Florida Atlantic University

Shukui Liu, Nanyang Technological University

Christos Manoli, Acheon Akti Navigation Company Ltd

Victoria Monica Miglietta, GHD

Ahmed Gaber Hassan Mohamed, Arab Academy for Science,
Technology & Maritime Transport

Pedro Bernardo Moraes, Brazilian Navy

Max Moyes, University of British Columbia

Rachel Neal, Matrix New World Engineering

Lidia Mouravieff Needham, Serco

Chris Newton, Capilano Maritime Design Limited

David A. Ockers, American Bureau of Shipping

Jacob Robert Ohman, Massachusetts Maritime Academy

Andrew Rivers Oldmeadow, University of New Orleans

Antonios Papaioannou, DROBOTIQS

Vaggelis Papalaios, Alfa Laval

Ricardo Gabriel Ramriez Troncoso, Universidad Veracruzana

Jordan Wesley Reid, Marine Diversers LLC

Tye Reyna-Clarke, Robert Allan Ltd.

Antonio Jose Roig, Roig Engineering Corp.

Deaglan Anaya Salado, University of New Orleans

Kanika Singh, Seoul National University

Mrigank Singh, Intoglo Private Ltd.

Briston Siow, Independent

Matthw Thomas, ABS Canada

Ignazio Maria Viola, University of Edinburgh

Nicholas Voltis, Lloyd's Register

Ioanna Vossou, University of West Attica

Miles James Wilkinson, Wiltec Marine & Industrial Services Ltd.

Miles Williams, Glostern

Oswaldo Zambrano, Ingenieros de Venezuela



JOSEPH W. LOVETT

SENIOR ADVISOR, JW CONSULTING

At what point in your career did you join SNAME?

I joined in July 1974 while employed by Deep Oil Technology (DOT) in Long Beach, California. At that time, we engaged in advancing the concept of both Tension Leg Platform (TLP) technology and subsea production, all geared toward future oil and gas production in ultra deep water and more harsh environments.

How has SNAME membership been of value to you in your career?

As a SNAME member I was able to routinely meet my peers and others working within the marine and offshore industries. This would happen while attending SNAME luncheons, dinners, conferences, and seminars. These functions would normally include guest

speakers from industry who were actively engaged in design, engineering, R&D, construction, or operations. SNAME provided opportunities to meet these folks, ask questions, and learn. These functions enhanced my career over the last fifty years!

When did you know you wanted to pursue a job in the maritime field?

My interest in this field began as a young man living in a small seafaring town called Louisbourg, Nova Scotia, Canada. In the mid-1950s this was a highly active port of call for all types of ships from around the world. Wooden/steel fishing boats, sailing schooners, steam powered cargo ships (later, motor vessels), and large Canadian ice breakers. I was able to get aboard all of them. Asking questions, learning how things worked, what they liked/disliked about seakeeping, mechanical issues, raising/lowering heavy canvas sails, etc. I even shoveled coal a time or two to keep the steam up. I could not get enough of ships and how they operate. This industry, this marine field is where I would build a career. My initial job was employment at ABS headquarters in New York in 1962, and I am still in the industry. It was a wonderful voyage!

As a senior member of the maritime field, what advice would you give to those entering it?

It is a unique and wonderful field to build a career. Opportunities abound. Select an area that suits your interest and pursue it. It could be at sea, the design office, or shipyard or management. In any event, being a team player with all working toward a shared goal is key! Sounds cliché, but it is true. Teams will meet the challenge and move the industry forward in terms of innovation, efficiency, and overall competitiveness.

This is your 50th year as a SNAME member. What is it about SNAME that has kept you engaged for 50 years.

Camaraderie. Having the opportunity to meet peers at SNAME and within the maritime industry. I believe having membership in SNAME says you have arrived, that you are part of a professional organization committed to the advancement of the maritime field.

UPCOMING INDUSTRY EVENTS:

12 February 2025 - [New Nuclear for Maritime Houston Summit 2025](#) - Houston, TX

UPCOMING SECTION EVENTS:

7 January 2025 - [Large Yacht Stability](#) - Hybrid Event: [In-Person](#) / [Virtual](#) - London, UK (Contact: Keith Lilley, klilley@outlook.com)

8 January 2025 - [SNAME Hampton Roads: Social on the South Side](#) - In-Person Event - Chesapeake, VA (Contact: Kristina Matranga, kristina.c.matranga@hii-nns.com)

15 January 2025 - [Technical Meeting](#) - Hybrid Event: [In-Person](#) / [Virtual](#) - Location TBD (Contact: Jourdan Puyau, jourdan.puyau@gmail.com)

23 January 2025 - [SNAME Canadian Pacific Section Student Presentations](#) - In-Person Event - Vancouver, BC (Contact: Ocean Bishton, alexanderbishton@gmail.com)

30 January 2025 - [SNAME Seatech Assembly](#) - In-Person Event - Dania Beach, FL (Contact: Jakob Michels, jakobmichels01@gmail.com)

4 February 2025 - [British Battleship Gun Mountings](#) Hybrid Event: [In-Person](#) / [Virtual](#) - London, UK (Contact: Keith Lilley, klilley@outlook.com)

8 February 2025 - [Green Fleets Symposium](#) - In-Person Event - Vancouver, BC (Contact: Alex Bishton, alexanderbishton@gmail.com)

4 March 2025 - [The Rise of Civil Nuclear in Maritime](#) - Hybrid Event: [In-Person](#) / [Virtual](#) - London, UK (Contact: Keith Lilley, klilley@outlook.com)



Rachael Gass

Manager, Events & Digital Assets
rgass@sname.org

FEATURED EVENT

WIND PROPULSION FOR SHIPS WORKSHOP

Over 250 attendees participated in the [Wind Propulsion for Ships](#) workshop on 20 November 2024 at the V. Ships Ltd Auditorium, Piraeus, Greece. Jointly organized by **SNAME's Greek Section** and RISE (Research Institutes of Sweden), the event served as a comprehensive platform to explore the potential of wind-assisted technologies in modern shipping. It emphasized the critical role of wind propulsion in achieving enhanced fuel efficiency and compliance with evolving environmental regulations, such as Energy Efficiency Existing Ship Index (EEXI), Carbon Intensity Indicator (CII), and Energy Efficiency Design Index (EEDI) standards, European Union (EU) Greenhouse Gas (GHG) reduction regulations and the promulgated mid-term International Maritime Organization measures. It also successfully demonstrated the growing relevance of wind-assisted propulsion in addressing the dual challenges of regulatory compliance and operational efficiency.

The event underscored the potential for wind propulsion to reshape the maritime landscape by bridging industry expertise with innovative solutions. Highlights from the robust exchange of views during the question-and-answer sessions and panel discussions are provided below. For further details, please contact John Kokarakis (john.kokarakis@bureauveritas.com), SNAME Greek Section Chair.

What are the main barriers to integrating wind-assisted propulsion systems with existing ship designs?

Barriers include interference with cargo loading and unloading, seamless integration with existing propulsion and power systems, structural modifications, regulatory and certification challenges, economic viability, payback period; limited operational flexibility; maintenance issues, and crew training on these new systems.

How can wind propulsion systems be optimized to work alongside conventional propulsion to maximize fuel savings?

Optimization can be done by: 1) automatically optimizing the interaction between wind and conventional propulsion, ensuring smooth transitions; 2) route optimization; and 3) synergistic design of hull and propulsion systems.

What are the most promising wind-assisted propulsion technologies for different types of vessels (e.g., bulk carriers, tankers, container ships)?

They are rotor sails, rigid sails, wing sails, and suction sails, all of which were presented at the workshop.

Are there specific vessel routes or operating conditions where wind-assisted propulsion is particularly advantageous or disadvantageous?

Yes, wind-assisted propulsion thrives on long-haul, low-speed, and open-water routes with consistent wind patterns. At the same time, its utility diminishes in equatorial regions, short-haul operations, and areas with adverse weather or confined navigation spaces. It also has a higher impact on smaller, low-powered vessels.

What is the payback period for installing wind propulsion systems, and how does it compare to other energy-saving technologies?

Technology	Payback Period
Wind Propulsion Systems	3–10 years
Hull Optimization	2–5 years
Air Lubrication Systems	2–5 years
Energy-Efficient Propellers	2–6 years
Exhaust Gas Economizers	3–6 years
Battery-Electric/Hybrid	7–15 years
Scrubbers	1–5 years

What are the safety concerns related to deploying and

operating wind propulsion systems in severe weather conditions?

Safety concerns include: 1) vessel stability and control as large sails, wings, or rotors used in WAPs can generate significant forces that affect the vessel's stability, especially during high winds or sudden gusts; 2) structural integrity as high winds and heavy seas can subject WAP components to extreme forces, potentially leading to structural damage or failure; 3) crew safety as crew members may face increased risks while operating or maintain WAPs in rough conditions; 4) reduced visibility as large WAPs installations particularly rigid sails or rotors, may obstruct the bridge's field of view, complicating navigation in storms or heavy rain; 5) operational challenges as deploying or retracting WAPs in severe weather can be complex and time-consuming, posing risks to operational reliability; 6) lightning strikes as the tall and conductive WAP structures increase this risk; 7) increased loads on propulsion and steering systems (e.g., rudders or thrusters) due to wind propulsion forces interacting unpredictably with the vessel's main propulsion and steering systems in turbulent weather. Notably, there are mitigating solutions for these concerns, including rapid deactivation of the WAP systems, monitoring and alerts, design redundancy, and implementing emergency protocols.

How can crews be trained to operate and maintain wind-assisted propulsion systems effectively?

Crews must be trained not only in the theoretical but also in the practical application of the WAP technology. Certification and continuous learning programs must also be developed. It will also be essential to measure the effectiveness of the training by establishing key performance indicators covering crew proficiency in deploying and retracting WAPs, reduced system downtime due to operator errors, improved fuel savings and emissions reduction post-training, and enhanced safety records during WAP operation.

What roles do digital tools (e.g., AI and machine learning) play in predicting wind availability and optimizing system performance?

AI-powered models can help predict wind availability by analyzing vast datasets from satellite imagery, weather stations, and oceanographic sensors to provide high-resolution, real-time wind forecasts. AI and machine learning can also aid system performance optimization with sensors that collect data (wind speed, direction, sail angle, and vessel speed) processed

in real-time to make adjustments for optimal performance. Other AI and machine learning roles include maintenance and fault prediction, enhanced decision-making with AI-powered dashboards for actionable insights to crew and operators, and aiding regulatory compliance, such as emissions monitoring.

What lessons can be learned from the historical use of wind propulsion, and how can they inform modern applications?

Understanding Wind as a Dynamic Resource: Ancient mariners developed an intricate knowledge of prevailing wind patterns, such as trade winds, westerlies, and monsoons, to optimize routes and maximize propulsion, and sailing vessels often followed seasonal wind patterns to ensure reliable voyages. Modern applications use advanced weather routing software to integrate wind data into navigation strategies.

Flexibility and Adaptability: Historically, sailing ships were equipped with adjustable rigging to adapt sail area and configuration to varying wind conditions. Mariners learned to reef sails or change rig setups to balance propulsion with safety in strong winds. Modern applications incorporate retractable, foldable, or adjustable WAP components, such as rotor sails, wing sails, or suction sails.

Maintenance and Durability: Historically, constant exposure to harsh marine environments required regular maintenance of sails, rigging, and masts to ensure durability. Traditional materials like hemp ropes and canvas sails often degraded quickly in saltwater and UV exposure. Today, advanced materials, such as corrosion-resistant alloys and high-performance composites, improve durability. WAPs can also be designed with modular components for easier maintenance and replacement, reducing downtime and costs.

Balancing Efficiency with Safety: Historical ships faced trade-offs between maximizing speed and maintaining safety, particularly in stormy or unpredictable conditions. Navigators often reduce sail area to maintain control and prevent capsizing. Modern applications employ computational fluid dynamics (CFD) and wind tunnel testing to optimize designs for stability and performance.

Operational Training and Expertise: Operating a sailing ship requires specialized skills and knowledge, from navigating wind patterns to handling sails and maintaining rigging. Crews worked collaboratively to ensure efficient operation and safety. Today, comprehensive training programs that use simulators and e-learning platforms must be developed

to train crews to operate and maintain WAPs effectively and to familiarize operators with wind propulsion principles and emergency procedures.

Integration with Other Propulsion Systems: The introduction of steamships in the 19th century marked a shift from reliance on wind propulsion to hybrid systems. Early steamships retained sails to supplement propulsion and conserve fuel when conditions allowed. Modern applications provide for the design of hybrid systems that seamlessly integrate WAPS with conventional engines, allowing for dynamic load balancing and fuel efficiency. WAPs can be used as auxiliary systems to complement low-carbon fuels or electric propulsion, aligning with decarbonization goals.

Scalability and Versatility: Historically, sailing ships ranged from small fishing vessels to large merchant ships, demonstrating the versatility of wind propulsion across vessel types and sizes—the scalability of sail technology allowed for its widespread adoption across diverse maritime sectors. Today, WAPs can be designed as modular units tailored to different vessel types, from bulk carriers and tankers to smaller coastal vessels.

Economic Viability: Throughout time, the financial appeal of sailing ships lay in their ability to operate without fuel costs, though they required larger crews and longer transit times. Despite higher operational costs, the shift to steam propulsion occurred because of its speed and reliability. Today, the economic benefits of WAPs are demonstrated in fuel savings and emissions reductions, offsetting initial investment costs.

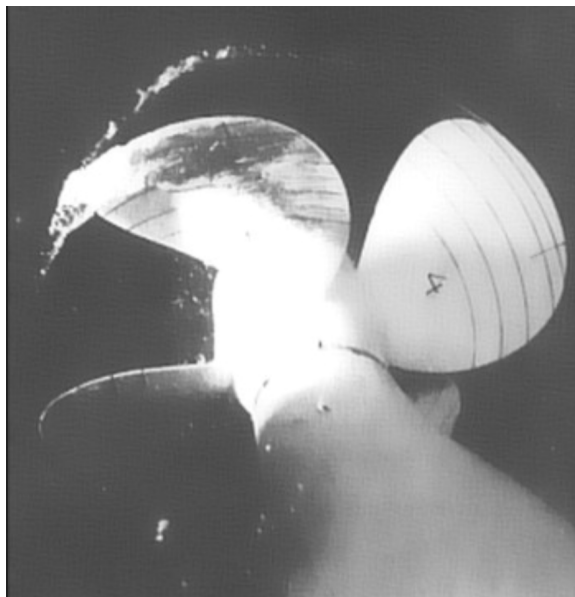
Navigational Challenges: Historically, ships faced difficulties navigating in windless conditions (doldrums) or unfavorable winds (headwinds). Mariners relied on auxiliary propulsion methods, such as rowing or towing, to traverse challenging areas. Today, data-driven optimization tools can be employed to avoid regions with low wind availability and identify optimal routes.

Cultural and Regulatory Acceptance: The age of sail inspired maritime traditions and aesthetics, making wind propulsion a culturally significant aspect of seafaring. The transition to steam was driven by technological innovation and regulatory adaptation. Modern decarbonization goals provide a unique opportunity to gain regulatory and societal acceptance of WAPs, promoting them as part of a broader sustainability narrative and emphasizing their role in achieving environmental targets.

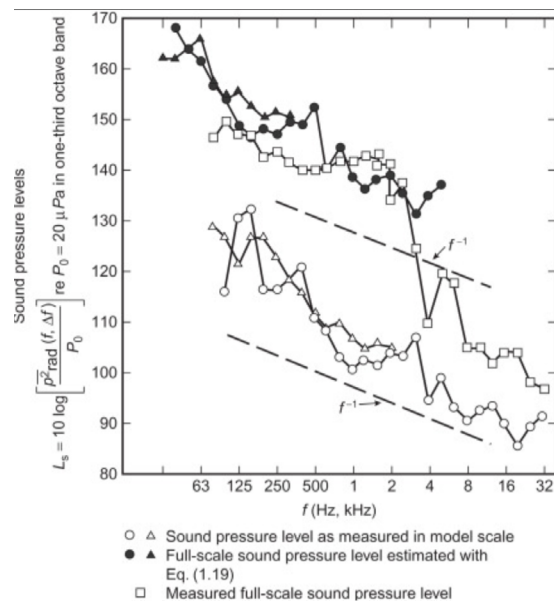
NEW T&R BULLETIN ON UNDERWATER NOISE

The EC-14 working group on underwater noise is working hard to complete a new T&R bulletin related to reducing underwater radiated noise from vessels. The purpose of the bulletin is to provide guidance and practical knowledge to support the development and construction of quiet vessel designs to reduce the environmental impact of underwater radiated noise from ships. Specific guidance is provided for vessel owners. However, naval architects and marine engineers will also benefit from understanding the concepts and approaches discussed in the document which facilitate the integration, new, quiet designs, and technologies across the maritime community.

The guidance in the new T&R bulletin builds on the efforts of the International Maritime Organization (IMO). In August 2023, the IMO issued the Revised Guidelines for the Reduction of Underwater Radiated Noise from Shipping to Address Adverse Impacts on Marine Life and its related Action Plan. By guiding the processes owners and operators can follow to reduce the underwater noise generated by their vessels, both existing and new builds, the new T&R bulletin will assist with understanding and implementing an Underwater Radiated Noise Management Plan as outlined by the IMO.



Propeller blade unsteady cavitation. Reprinted from *Principles of Naval Architecture* (1988), vol. 3, with the permission of the Society of Naval Architects and Marine Engineers.



Full-scale sound pressure level in one-third octave bands in water estimated from model test using Eq. (1.19a) and compared with a measured sound pressure level for a twin-screw ferry [8].

<https://www.sciencedirect.com/topics/engineering/propeller-cavitation>



Rick Ashcroft

Director, Technology and Education
rashcroft@sname.org

PUBLICATIONS



SMC 2025 – CALL FOR CONTENT

The 2025 SNAME Maritime Convention (SMC 2025) technical sessions will take place on Thursday and Friday, 30-31 October 2025 at the Hilton The Main in Norfolk, Virginia, USA.

The theme for SMC 2025 is Technology Transfer - Bringing Global Best Practices to the Maritime Industry. Potential content includes, but is not limited to, material from around the world on the following topics: design, build, manufacture, operate, sustain, and recycle.

The full Call for Content and additional information for authors and presenters are available online:

- [SMC 2025 Call for Content](#)
- [SMC 2025 Abstract Submission Instructions](#)
- SMC Paper Template ([PDF](#)) ([Word](#))
- [SMC and FAST Author Agreement](#)
- [Presentation Release Form](#) - Presentations only
- [Manuscript Correction Request](#)



FAST 2025 – CALL FOR PAPERS

The International Conference on Fast Sea Technology (FAST) is the premier global conference for high performance ships and craft that brings together experts in their research, design, manufacturing, and operations from around the world to share the latest knowledge and experiences with these vessels and their supporting technologies.

FAST 2025 will be held 29 October 2025 in Norfolk, Virginia, USA, ahead of the annual SNAME Maritime Convention. The theme of the 2025 conference is Connecting the Dots in High-Speed Craft Digital Design, with papers concerning the digital thread running through all phases of the system lifecycle. Advanced computational, experimental, and machine learning techniques to facilitate individual elements of the digital thread, and methods to link the elements together to integrate the thread are welcomed.

The full Call for Papers and additional information for authors and presenters are available online:

- [FAST 2025 Call for Content](#)
- [FAST 2025 Abstract Submission Instructions](#)
- FAST Paper Template ([Word](#))
- [SMC and FAST Author Agreement](#)
- [Presentation Release Form](#) - Presentations only

Abstracts for both SMC 2025 and FAST 2025 can be submitted between 2 January and 10 February at: <https://mc.manuscriptcentral.com/snamsmc2025>



Maggie O'Brien
Director, Publications
mobrien@sname.org

DECEMBER JOB SPOTLIGHTS:

DOCKMASTER & WATERFRONT OPERATIONS MANAGER

Member Company: General Dynamics Bath Iron Works

Location: Bath, Maine, United States (On-Site)

[READ MORE](#)

MARINE WARRANTY SURVEYOR AND MARINE ADVISORY ENGINEER

Company: DNV

Location: Japan, Japan (On-Site)

[READ MORE](#)



THE MCHENRY MANAGEMENT GROUP (TMMG)

ENG SUPV – PIPE CHECKER (2D-3D)

Description: TMMG is seeking a Shipyard Engineering Supervisor Pipe Checker to plan, direct, and coordinate activities within the assigned technical department. The Shipyard Engineering Supervisor Pipe Checker is responsible to solve technical problems, develop applicable documentation, and supervise all assigned resources to support the Company's projects. He / She is also responsible for defining resource requirements to achieve schedule and budget commitments and solving technical issues as they arise within the field of competence while interacting with other organizations and customers (internal and external). The position is in Marinette WI.

Essential Duties and Responsibilities:

- Facilitate communication of issues and solutions throughout the Shipyard Detail Design Piping Department and the Shipyard Engineering organization.
- Train, develop and evaluate resources to support department workload
- Plan, direct and coordinate 2D & 3D checking resources and activities within the department
- Estimate, schedule, and monitor assigned work and the work of assigned resources
- Track and report progress to budget and schedule commitments
- Check and issue high quality deliverables
- Interpret contract requirements
- Develop contract change documents to support the project needs
- Define, track and control subcontractor activities
- Abide by and enforce all organizational policies and procedures

Interested Candidates please send your resume to Steven Frazier fraziers@tmmg.us.com.



THE MCHENRY MANAGEMENT GROUP (TMMG)

NAVAL ARCHITECT

Description: TMMG is seeking a full-time Senior Naval Arch to provide waterfront support during the construction of Naval ship systems in a shipyard environment. The Senior Naval Arch engineer must be able to read prints, work inside a 3D model of the ship, develop drawings and reports to affect corrections to the 3D model piping or structural systems. The candidate must be capable of design calculations and FEAs for structural systems. Identification of new equipment and technologies to meet customer requirements. Candidate must be self-motivated, self-directed, self-managed and exhibited excellent verbal and written communication skills. The position is located to Marinette WI/ remote.

Essential Duties and Responsibilities:

Job Requirements:

- Performs structural analysis of local structural modifications.
- Works with shipyard, Navy, and/or prime contractor, to discuss and confirm analysis inputs and assumptions. Performs ship checks to verify information, interferences, and operational considerations.
- Understands basic naval architecture topics: weight management, longitudinal strength, hydrostatic properties & stability, and terminology of ship structural members.
- As directed by shipyard manager, engineer work with shipyard detail design teams, functional teams, and waterfront team to collaborate and solve problems.
- Experienced with basic differences in material properties of common materials and grades used in ship building (ordinary and high strength steel, aluminum, and stainless steel).
- Familiar with applicable Rules, standards, and codes for structural analysis of common ship structures (equipment foundations, work platforms & handrails, and masts).
- Able to use AutoCAD for reviewing drawings and drafting instructions for structural modifications.
- Reviews structural drawings for completeness and conformance to industry and company standards.
- Recommend designs with constructability taken into consideration.
- Experience with designing structural details where foundations tie into adjacent ship structure by adding reinforcement plates, brackets, additional stiffening, etc.
- Performs on-site training, as needed (shipyard employees for using Femap software and performing ship structural analysis)

Interested Candidates please send your resume to Steven Frazier fraziers@tmmg.us.com.

CORPORATE AFFILIATES

Thank you to all of our Corporate Affiliates for their support. Together we are building the future of the maritime industry.

[LEARN MORE](#) about the Corporate Affiliate Program.

GENERAL DYNAMICS
Bath Iron Works
BIWCAREERS.COM

SIEMENS

VARD™
a Fincantieri company

 **innovmarine**
PRODUCTIVITY & TECHNOLOGY PEOPLE THAT CARE



 **seaspan**
SHIPYARDS

 **genoa**
DESIGN INTERNATIONAL



To submit content for SNAME's monthly newsletter, please email publications@sname.org by the 15th of the month.

SNAME THE INTERNATIONAL COMMUNITY FOR MARITIME AND OCEAN PROFESSIONALS

USA OFFICE 99 Canal Center Plaza, Suite 500, Alexandria VA 22314 United States, 703-997-6701

EUROPE OFFICE 61, Poseidonos Avenue, Paleo Faliro, 175 62 Attica Greece, +30 210 452 8205

sname@sname.org