IN THIS ISSUE:
Alumni Profile, Todd Grove
NAME Professorships
Building NAME’s Future
MHL: Sealing the Tank
Message from the Chair

I hope you will enjoy this new edition of the Nautilus, which reports some of our accomplishments in Naval Architecture and Marine Engineering during the 2015-2016 academic year. In particular, we highlight our ongoing and strong relationship with ABS.

Since its founding in 1862 as the American Bureau of Shipping, ABS has been a leader in ship classification, working to ensure the safe and efficient operations of ships and offshore structures and production plants.

ABS has also supported the development of the next generation of naval architects and marine engineers through the provision of student scholarships and internship opportunities. And, they have helped sustain the academic enterprise through the support of professorships and endowments. Michigan is proud that many of our alumni have joined ABS, including members of its current executive leadership team.

Our distinguished alumni award winner this year is Mr. Todd Grove. Mr. Grove is a 1982 NAME Alum and president and COE of ABS Group, an international shipping consultancy.

Our undergraduate students continue to travel far and wide to enhance their knowledge and gain new experiences as budding naval architects and marine engineers. Our students were once again hosted by Huntington Ingalls Industries as part of an extensive visit over our spring break. They were able to get real-world experience in a working shipyard. Thanks to all of you who have sponsored and hosted our students during site visits and internships.

I would also like to invite you to check our new NAME website. Our department worked with the College's Office of Marketing and Communications to bring our site up to date, and we hope that you will visit it regularly to learn about our latest activities. The link for the website is www.engin.umich.edu/name.

I would like to thank all of our alumni who continue to be a strong source of support for our students and faculty, and I would like to thank all of you who have continued to play a part in the success of our department. As you read about what we have been doing, we invite you to let us know about your accomplishments and future plans. As always, we welcome your visits to campus in Ann Arbor. Please stop by and see us.

Thanks you for taking the time to read about our past year, and Go Blue!

Steve Ceccio
NAME Department Chair
CONTENTS

Features
Alumni Profile, Todd Grove 4
Ceccio & Sun Professorships 7
MHL: Sealing the Tank 12
Building NAME’s Future
Maintaining Global Leadership 8

Alumni 14
Students 18
Quarterdeck 20
Awards 20
Faculty News 22
These days 1982 NAME alum, Todd Grove, is President and COE of ABS Group, an international shipping consultancy, but he wasn’t always. Before he was this year’s NAME Alumni Award recipient for the College of Engineering, he was a student here.

When asked about those days, his mind returns to his time in The Quarterdeck Society. In 1982 The Quarterdeck Society helped organize Tech Day; an annual event that invites prospective college students and their family members to explore Michigan Engineering. “That model used to be upstairs in the Undergraduate Library on Central Campus kinda lost back in a corner.” Groves explains, “That didn’t seem right to us.” So when the student group decided they needed something special to help promote the offshore aspect of marine engineering at Tech Day, they hatched a plan.

“The key,” says Grove, “to backing a pickup truck onto the Diag and hauling the model out of the UGLI was to just look very authoritative while we were doing it.”

The rest, as they say, is history. The model became the center piece for their Tech Day exhibit that year and afterwards, and found its new home in the NAME building, where it’s lived ever since.

“I think it’s where it belongs.” He says proudly.

When he looks back on the trajectory of his career, he thinks his younger self would be surprised at where he is. “It was all very unplanned.” He explains. “I started off as just another ABS summer intern and by happenstance, there was an opening in the research and development department and particularly in hydrodynamics.” Although he’d been keeping his classes general to that point, he returned to Michigan with a new focus and passion for hydrodynamics and was offered a full time job with ABS right after graduation. Of his growth at ABS, Grove says, “It started evolving into some other aspects in a really organic way in terms of opportunities that presented themselves. Either from management seeing from my work that I was interested in something or they were already looking into a new area that they needed help to go explore. A lot of opportunities came up by management approaching me and asking if I would be interested.”

So what’s it like to step into the leadership role at an international, for-profit, industry consulting organization after 30 years of non-profit marine classification work? “It’s been like drinking from a fire hose!” Grove laughs. “It’s a whole different mindset. We still perform a lot of the same safety related services for industry, but from a very different consulting type of mindset. So one of biggest challenges of being moved in as CEO of an organization is at the same time learning what the organization actually does. You go through your career constantly learning and each time you step into a new position, you’re learning all over again.”

Grove says he learned that enduring student mentality at Michigan. “The
great thing about the NAME program in particular and the college overall is just how well everything is integrated. I still see NAME as a very unique discipline in college because of its systems-based approach. It’s great to take a deeper dive into a particular discipline, but still having that background of understanding how everything works together; structures, mechanical systems, equipment, etc. It all integrates together and that’s a great asset to allow you to be very nimble when it comes to what career paths present themselves and how to quickly evolve from step to step in ways that you don’t particularly anticipate.” Grove notes that while the university as a whole provides the basis for extremely well rounded graduates,
ABS/UM Partnership

Since its founding in 1862 as the American Bureau of Shipping, ABS has been a leader in ship classification, working to ensure the safe and efficient operations of ships and offshore structures and production plants. ABS has also supported the development of the next generation of naval architects and marine engineers through the provision of student scholarships and internship opportunities. Many of our NAME students have been the beneficiaries of these opportunities. ABS has also helped sustain academic enterprise through the support of professorships and endowments, including this year’s endowed professorship of NAME Chair, Steven Ceccio. The University of Michigan, and NAME in particular, is proud that many of our alumni have joined ABS, including members of its current executive leadership team. We look forward to many years of continued partnership that will continue to shape the future of the naval and marine industries.

It’s the Michigan connections that follow you into the world that become invaluable. “Those friendships that you build while you’re here are going to be with you for the rest of your career, wherever you go in the industry, because the marine is still a small, close-knit industry worldwide. I’m forever pleasantly surprised when I travel to new areas, talk to new companies, to be constantly bumping into University of Michigan naval architects all around the world.”

One piece of advice he’d give to current students is to not overlook the development of their communications skills. “You can have all kinds of tremendous ideas and you can demonstrate expertise in many ways,” he says, “but if you can’t communicate that in an effective way, it’s all for naught.” This becomes even more important as careers develop to entail more leadership roles. “If you can’t effectively communicate the direction that you want to take the company as you get into a senior role, the best strategy and plans are useless if you can’t put that into a form that people are going to be able to execute.”

So, what’s next? He can’t really say. “It’s like an old boss told me,” Grove says, “The reward for doing a job really well is to be presented with a new, seemingly impossible challenge.” Whatever that challenge may be, we’re sure he’s up to the task.
In a ceremony on March 22, 2016 Professor Jing Sun was officially named as The Michael G. Parsons Collegiate Professor of Engineering by Dean of Engineering, Dave Munson.

Collegiate professorships are among the highest honors the College awards and are given to outstanding faculty in an effort to acknowledge their contributions in research, teaching and service.

Faculty Professorships are named for former faculty members who have made substantial scholarly contributions during their time at Michigan. Professor Sun chose to name the appointment after former Naval Architecture and Marine Engineering Chair, Michael G. Parsons, who was also in attendance.

Of the professorship, Sun says, “It is a great honor for me to bear this professorship named after Prof. Michael G. Parsons, who has been a tremendous role model and inspiration for many of us working in the field. I also have my former and current students to thank, as they have been and remain the driving force for anything that I accomplish. It is also a very humbling feeling. I am very fortunate to have the opportunities to work with so many accomplished colleagues in this great university.”

Michael G. Parsons is an Arthur F. Thurnau Professor Emeritus and Professor Emeritus of Naval Architecture and Marine Engineering. He joined the Michigan Engineering faculty in 1972 and remained until his retirement in 2008. He is a Society of Naval Architects and Marine Engineers Fellow, and in 2003 received the prestigious William H. Webb Medal for outstanding contributions to marine education. He also served as Associate Dean for Undergraduate Education from 1991 to 1996.

Professor Sun has been a faculty member in the College of Engineering since 2003. Besides her appointment in the Naval Architecture and Marine Engineering Department, she holds joint appointments with both the Electrical Engineering and Computer Science and the Mechanical Engineering departments. Prior to her time at the university, Professor Sun spent a decade at the Ford Research Laboratory. She has co-authored a textbook on Robust Adaptive Control and published more than 200 archived journal and conference papers. She holds 39 US patents and is an IEEE Fellow having received the 2003 IEEE Control System Technology Award.

Naval Architecture and Marine Engineering Department Chair, Steven L. Ceccio has been named The ABS Professor of Marine and Offshore Design Performance. Robert J. Vlasic Dean of Engineering, David C. Munson presented Professor Ceccio with this title of distinction in a ceremony on April 14th 2016.

With remarks by former student, Dr. Kathryn R. Osterholzer and ABS President Christopher J. Wiernicki, as well as an introduction by Tim Manganello/Borg Warner Chair of Mechanical Engineering, Kon-Well Wang, Professor Ceccio’s many achievements were recognized by faculty, staff, student, friends and family.

The appointment of an endowed professorship is reserved for a scholar of national and international stature who has a distinguished record of education, research and publications. Funded by and named for the American Bureau of Shipping, this professorship will serve to strengthen the long and respected history of collaboration between NAME and ABS, whose mission is to serve the public interest as well as the needs of members and clients by promoting the security of life and property, and preserving the natural environment.

Professor Ceccio received his BS degree in mechanical engineering from the University of Michigan in 1985. He received his MS degree in 1986, and his PhD in 1990 both in mechanical engineering from the California Institute of Technology. Upon completion of post-doctoral studies, he was appointed as an Assistant Professor of Mechanical Engineering at the University of Michigan, Ann Arbor in 1990. He was promoted to Associate Professor with tenure in 1996, and Professor in 2003. He served as a Associate Vice President for Research at the University of Michigan (2004-2009) and as the Director of the Naval Engineering Education Center (2010-2015).

Professor Ceccio’s research focuses on the fluid mechanics of multiphase flows in propulsors and turbomachinery, cavitating flows, vertical flows, friction drag reduction, the dynamics of liquid-gas, gas-solid, and three-phase disperse flows, and the development of flow diagnostics. He has served as an Associate Editor of the Journal of Fluids Engineering and been a longtime consultant to government and industry.

Professor Ceccio is a fellow of the American Society of Mechanical Engineers and of the American Physical Society, and he was named the 2014 Freeman Scholar by A.S.M.E.
Our Heritage: A Legacy of Leadership

MICHIGAN’S Naval Architecture and Marine Engineering (NAME) program started in 1879 with an act of Congress authorizing a Navy officer to teach “steam engineering and iron shipbuilding” at the University of Michigan. That officer was Mortimer Cooley, who became the second Dean of the College of Engineering.

He was joined in 1900 by Herbert C. Sadler, NAME’s first professor, with the goal of making U-M’s program “second to none.” Thanks to a succession of distinguished faculty, pioneering research scientists and high-achieving graduates, their vision quickly became reality.

Over the years, NAME has continued to build on its rich intellectual heritage. Our world-class faculty have amassed an unparalleled record of excellence. Our alumni have gone on to become Chief Naval Architects of the U.S. Navy, leaders at the American Bureau of Shipping (ABS), entrepreneurs, highly regarded scholars and team members of winning America’s Cup entries.

Today, NAME remains the world’s undisputed leader in teaching and research. But our leadership is being challenged as governments and industry sponsors across Asia, South America and Europe invest heavily in naval architecture and marine engineering programs.

To date, Michigan has maintained its preeminence in research and teaching. But the fact is, although our peers are still striving to reach our level of technical excellence, they have far surpassed us in infrastructure. At this crucial time, when engineering excellence in the marine environment is more important than ever, we are determined to extend our leadership...
status by building a state-of-the-art home for NAME that will support teaching and research for the 21st century.

Our Commitment: Meeting the Challenges of Tomorrow

ENGINEERING EXCELLENCE in the marine environment is more important now than ever before. U-M’s leadership is essential to solving complex global challenges, among them:

- The opening of the Arctic region over the next 50 years due to climate change will become increasingly important to the economic well-being of our nation. NAME has the expertise and capacity to develop technologies for sustainable, safe and effective operations in the Arctic.
- As the integrity of our environment becomes more and more compromised, demand is increasing for high-efficiency, low-polluting fleet ships worldwide.
- The ocean floor represents a new frontier for both scientific discovery and commercial mining operations. Capitalizing on these opportunities will require vastly improved semi and fully autonomous robots and vehicles.
- U.S. Naval dominance is being challenged by emerging powers across the globe. This calls for a redoubling of effort on the part of naval architects and marine engineers to develop the next generation of naval platforms.

Our Mission: Building for the 21st Century

OUR EXCEPTIONAL faculty and students are ready to solve these and other global challenges — challenges that will define our field in the coming decades. We have the expertise and intellectual capital.
What we lack are 21st Century facilities for teaching, research and collaboration.

To assure our continued excellence we are striving to develop support for the following important initiatives.

**Modernized Facilities**
Firstly, we need to upgrade and improve our existing instructional and research facilities. This includes our laboratories and facilities on central campus as well as our instructional spaces on north campus. We are working to improve these spaces. This would include modernization of our Student Design Laboratory and improvements to our research laboratories to take advantage of emerging areas such as underwater autonomy and arctic research.

Ideally, we will ultimately be able to expand our facilities on north campus with new space that's dedicated to NAME's instruction and research.

**Student Support**
In addition, we continue to work with our alumni and other stakeholders to develop opportunities for our students both at the Undergraduate and Graduate level specifically your support for Undergraduate and Graduate scholarships and fellowships is greatly appreciated. Your willingness to host our students in internship opportunities and provide support so that we can send them around the world. Your continued support in this regard helps keep our students at the forefront of the field and permits them to truly see the world of Naval Architecture and Marine Engineering.

**A Transformative Opportunity For Donors**
UNLIKE ITS INTERNATIONAL COMPETITORS, the U.S. higher
education system has no organized means for renewing the nation’s engineering infrastructure at research universities. Therefore, we must turn to private support, relying on the vision and generosity of alumni, industry and other partners at this critical time in the department’s history.

By making a strategic investment in physical capital, and by helping to create forward-looking educational and research facilities, you can assure that NAME will continue to attract the best student and faculty talent and maintain its position as a global leader.

You can impact the next Century of Global Leadership

WITH YOUR SUPPORT, our faculty and students will have the 21st century research and learning spaces they need to forge ahead and tackle challenges across the entire spectrum of commercial, military and recreational engineering.

With your help, NAME will sustain its long tradition of excellence, innovation and being “second to none.”

We invite you to join us as NAME positions itself for another century of achievement … another century of service to society … and another century of global leadership.

Visit the College of Engineering online giving site at www.leadersandbest.umich.edu to give a gift to the Naval Architecture and Marine Engineering (NAME) Gifts Fund – 346780
MHL: Sealing the Tank
During the end of January 2015, it was discovered that the Marine Hydrodynamics Laboratory’s (MHL) Physical Model Basin (aka ‘Towing Tank’) would no longer hold water sufficiently to function as it should. Following 111 years of service, the age of the basin had taken its toll. The primary failure was due to a multitude of narrow cracks along the length of the steps adjacent to the trench in the bottom of the basin.

A five month effort by the staff of the MHL, the engineers of Architecture, Engineering and Construction (AEC) of the University and supporting contractors repaired the leaks utilizing a robust composite coating system that is designed to maintain the integrity of the basin for at least two decades. One interesting effect of the coating, which is green, is that the basin water now has a sea-green appearance — very nautical and appropriate!

Since returning the basin to full operation in July 2015 it has seen a high rate of use, supporting education, research and commercial projects. The recent activities include:

- Department of Energy’s Wave Energy Prize 2015 small scale device testing program throughout December 2015 and January 2016
- Vertical flexible foil testing
- Commercial propeller testing
- Sub-surface plate wave amplification investigation
- Air layer drag reduction investigation
- Engineering 100 lab class demonstrations
- NA 491 and 492 lab classes
- Powered planing hull commercial testing
- Verification of instrumentation suites for use on AUV type systems

We are excited that the MHL will to be just as busy throughout the upcoming year, given the slate of projects on our docket. Many thanks to all those who helped bring the basin back on-line, and who have come to the MHL with their projects.

---

Since returning the basin to full operation in July 2015 it has seen a high rate of use, supporting education, research and commercial projects. The recent activities include:

- Department of Energy’s Wave Energy Prize 2015 small scale device testing program throughout December 2015 and January 2016
- Vertical flexible foil testing
- Commercial propeller testing
- Sub-surface plate wave amplification investigation
- Air layer drag reduction investigation
- Engineering 100 lab class demonstrations
- NA 491 and 492 lab classes
- Powered planing hull commercial testing
- Verification of instrumentation suites for use on AUV type systems

We are excited that the MHL will to be just as busy throughout the upcoming year, given the slate of projects on our docket. Many thanks to all those who helped bring the basin back on-line, and who have come to the MHL with their projects.
Harry Benford, a U-M alum and former NAME professor, passed away on June 6, 2015 at the age of 97.

Harry Benford served the Department of Naval Architecture and Marine Engineering from 1948 through 1983. Benford was an internationally recognized pioneer in the scientific application of economic principles to ship design and marine investment decisions. In 1982 the title of Professor Emeritus was conferred, but he continued to be an active and valued contributor to the department on a voluntary basis until 2007.

Prior to his years in academia, Professor Benford worked in engineering analysis, production planning, and cost estimating at Newport News Shipbuilding and Dry Dock Company, Newport News, Virginia from 1940 through 1948. He served as chairman of NAME from 1967 through 1972. He served on the Executive Committee of the College of Engineering from 1962 through 1966.

Professor Benford was awarded the President's Prize in 1957 and the Linnard Prize in 1962 by the Society of Naval Architects and Marine Engineers for the outstanding papers presented before a Society section meeting and the Society's annual meeting, respectively. In 1976, he was awarded the David W. Taylor Medal, which was and remains the highest award SNAME confers for technical achievement. Due to his innovative and important contributions to the methods of ship production, he had been an invited lecturer in essentially every maritime nation of the world.

Along with his penchant for world travel, Harry Benford enjoyed photography and compiled carefully structured albums of his handiwork. He and Betty, his first wife, were both members of the First United Methodist Church. Additionally, they were known in Ann Arbor for their association since 1956 as faculty advisors to the U of M Gilbert & Sullivan Society. He was also the author of a widely read book about the Gilbert & Sullivan operas.

His love of life and devotion to his family, students, and colleagues will be greatly missed.
Howard Bunch, a former NAME associate professor, passed away on April 7, 2015 at the age of 88.

Howard Bunch joined NAME in 1976. As an expert in ship production, he introduced a sequence of specialized courses and organized a then unique summer internship program to give students practical shipbuilding experience. Bunch established the Marine Systems Division at the U-M Transportation Research Institute in 1982 and served for 12 years as its head. In 1985 and 1986, he was acting director of UMTRI. Bunch served as special assistant to the Undersecretary of the U.S. Navy, and he was an Associate Director of the Office of Naval Research-Europe. Professor Bunch was the founding editor of the Journal of Ship Production in 1985, and he served as the founding Chairman of the Education and Training Panel of the National Shipbuilding Research Program (NSRP), where he focused on technology transfer.

Prior to his years in academia, Howard Bunch worked at the Southwest Research Institute, San Antonio, Texas, at Olson Labs in Dearborn, Michigan, and as a private consultant.

For his contributions to the field of ship production, Bunch was named a fellow of the Society of Naval Architects and Marine Engineers, and he received the society’s William H. Webb medal for outstanding contributions to education in 1993.

In 1996, Professor Bunch was conferred the title of Associate Professor Emeritus, but he was an active volunteer in NAME thereafter. Upon his retirement, he continued to consult on various aspects of ship production, traveling to China, Europe and South America to conduct research and present short courses.

As a man working in the world of academia with only a MBA, Professor Bunch achieved many of his accomplishments through the virtues of hard work, integrity and creativity, but also from the power of his personality and from being a kind and caring person. He will be missed.
TOM MACKEY

Returning for Homecoming weekend this year was NAME Alum, Tom Mackey. During his undergraduate studies his photo was featured in a Life Magazine piece on the Marine Hydrodynamics Lab. A Life photographer grabbed him because, as was the custom in those days, he was wearing a suit on his way to class and the photographer thought he was a faculty member. Mr. Mackey was quite surprised to discover upon his visit that the photo (above) still hangs in the MHL main office.

JOHN WOODWARD

Professor Emeritus, John (Jack) Woodward, published his book, Heard on an Autumn’s Saturday, which recalls comical tales from the 300 plus Michigan football games he’s attended to-date in his lifetime.

“The essence of football, the key to its growth from the casual tussling of college boys into empires ruled by executives in the Athletic Director’s’ offices, is people’s’ fondness for watching it. In the 1880s they came, by the thousands even then, surrounding the muddy pastures of play to watch in uninhibited fascination. The thousands grew into more thousands and into the millions of yet later centuries, numbers that are surely correct when the totality of Saturday’s many battles is included ... You gotta have “em — those “fans” — bless their cretinous hearts.”

Copies available upon request.

Honor Roll of 2015 Internship Sponsors

— AS REPORTED BY THE STUDENTS —

Alion Science and Technology
American Bureau of Shipping
Bay Engineering, Inc.
Bay Shipbuilding
Bristol Harbor Group
Chevron Energy Technology Company
Chevron Shipping
Chrysler/Fiat
Colonna’s Shipyard
ConocoPhillips
Crowley Marine
Delta Marine
Elliott Bay Design Group
Exclerate Energy Corporation
Exmar Offshore Company
ExxonMobil Corporation
General Dynamics Electric Boat
Gold Coast Yachts
Huntington Ingalls Industries
ICI Services Corporation
INACE Shipyard, Brazil
Ingalls Shipbuilding
Kadey-Krogen Yachts
Maritime Research Institute Netherlands
Martin & Ottaway
Naval Research Enterprise Internship Program — Carderock
Naval Sea Systems Command
Netsco
Newport News Shipbuilding
(Atlantic-Ingalls Industries)
Oracle Team USA
Portland Naval Shipyard
Professor Kevin Maki, Research Project
Royal Caribbean Cruises, Ltd.
SAFE Boats
Schlumberger
Ship Architects Inc
The Interlake Steamship Company
The Shearer Group, Inc.
Trident Marine — IMECO Division
United States Army Corps of Engineers Marine Design Center
University of Michigan — Marine Hydrodynamics Lab
**Students:**
Ready to Intern?

It’s never too early to start the process of landing an internship. According to Undergraduate Staff Advisor Warren Noone:

- Have your resume ready in the fall so you can apply to internships as early as possible.
- Keep abreast of events where you can meet potential sponsors, such as those hosted by the Quarterdeck Honorary Society. Presentations focus on individual companies, industry trends and internship and employment opportunities.
- Don’t be afraid to pursue a potential internship sponsor.
- Apply for multiple internships. These positions can be very competitive, and limiting yourself in the application phase can result in not getting an offer. Having multiple offers from which to choose from is a much better situation.
- Keep an open mind, and apply to opportunities and companies outside of what you would consider your primary interest.
- Use your internships as a way to define your career goals.

---

**Sponsors:**
Ready to host an intern?

Sponsoring interns can serve a company in many ways, according to Undergraduate Staff Advisor Warren Noone. “Internships allow a company to see what kind of potential employee a school is producing and can serve as an extended job interview. Companies have the opportunity to see how a prospective hire performs in different areas of a company, with relatively low risk.”

If your company is interested in sponsoring one or more interns, Noone has the following recommendations:

- Come visit the Department. The Quarterdeck Honorary Society hosts sponsor visits and arranges company presentations beginning in mid-September through the end of the academic year.
- Consider attending one of the College of Engineering’s career fairs, held the last week of September and January every year. For more information, visit the Engineering Career Resource Center website at [www.career.engin.umich.edu/studalums/career-fairs](http://www.career.engin.umich.edu/studalums/career-fairs).
- Contact the NAME Undergraduate Office at (734) 764-6471. “We are always looking for opportunities for our students, no matter the time of year,” said Noone. The office works with sponsors to advertise internships and other positions, and can assist with developing and distributing job postings. The Undergraduate Office also helps sponsors collect student resumes, screen applicants and can follow up with students on the sponsor’s behalf.

Ready to be a sponsor or have other questions? Contact Warren Noone at nooner@umich.edu.
Ahoy from Quarterdeck!

To loosely quote our beloved Jim Harbaugh, this Quarterdeck Board will “attack this year with enthusiasm unknown to naval architects.”

We intend to continue the Quarterdeck mission of enhancing the professional development of the department’s students through opportunities such as volunteering, conferences, industry trips, corporate visits, and social events. We want to make this one of the most successful years of Quarterdeck, with events ranging from fun, social activities to exciting industry opportunities, all with the hopes of creating a more memorable experience for everyone in our department.

With the generous support of the Society of Naval Architects and Marine Engineers (SNAME), 24 students were able to travel to snowy Cleveland in early February to attend SNAME’s Great Lake, Great Rivers Section Meeting. A night of networking with industry leaders provided students with the opportunity to talk one-on-one with people who graciously shared their career interests and insights. It never fails to amaze me how friendly and caring the people in our industry are, and being able to chat with them one-on-one, as a student, is so immensely insightful and greatly appreciated. The following morning, we attended technical talks on Scrubber design for ECA compliance and on the viability of LNG conversion. Seeing all of our 300 level Marine Engineering material from the classroom put to use in the real world was satisfying and reassuring — that hard work and those late nights do pay off.

Pascagoula, Mississippi is a naval architect’s wonderland. Therefore, instead of heading to an all inclusive, sandy beach resort for spring break, some dedicated students headed south to visit Ingalls Shipbuilding. Thanks to the generous support of our department and Ingalls Shipbuilding, students from the department had the fantastic opportunity to learn about the shipbuilding processes and engineering at one of our country’s foremost shipyards. The week long adventure gave students an experience in steel fabrication, outfitting manufacturing of preassembly, launch, and delivery. Additionally, they saw the design side of the process including planning, scheduling, industrial engineering, and production control processes. This student exposure to industry is yet another example of the many opportunities available in our department to enhance personal understanding of shipyard design, planning, and production processes — ultimately making them more prepared for their first day on the job as a naval architect.

Of course, this year’s Quarterdeck Board continues our biweekly meetings on Tuesdays in our much loved, little basement classroom, 138 NAME. The meetings are a great
time for students from across the department to meet and chat over some quality take-out food. We host a speaker at every meeting to give students a quick look at a variety of sectors of the industry. A few examples of the speakers we have had include the Engineering Career Resource Center, Dresser Rand, Vigor, Electric Boat, and Angela Lossa, a researcher here at the university. In addition to the presentation, we have started including discussions of ‘current’ events going on in industry.

Now for the social events, or ‘so-shell’ events as we like to call them. Our Quarterdeck Board has been very active in increasing involvement in the department through enjoyable activities outside of our building. We had a night of ice skating, a day in Detroit for the boat show, and we went bowling. Whirlyball is a timeless tradition in the department, so obviously, we hosted Whirlyball for everyone — as every good Quarterdeck Board ought to do. Amidst all of the good times, we also host professional social events. This year, we rebooted the mentorship program, where underclassmen are paired with upperclassmen or graduate students. We want to foster an environment within the department, where it is easy to get academic and internship advice from people who have been through the process multiple times.

Looking forward to the Fall, the Quarterdeck Board has ambitious plans. We want to offer students the chance to experience working ships and active shipyards, by partnering with different shipyards and ship owners. Our intention is to give students the opportunity to experience what they see only see on paper during their time here. We think that it is a valuable addition to our education, and would be very beneficial to the professional development of the student body. We will also be attending the 2016 SNAME Maritime Convention, where we plan to bring 16 students across the country to Bellevue, Washington. To accomplish all of this, we have developed a strict budget, and are considering all of the fund raising opportunities available to us.

The Quarterdeck Society would like to send many thanks and acknowledgments to the wonderful alumni of the NAME Department, and to others, who continue to support the professional and academic development of our students. The Quarterdeck Society would not be able to provide all of these experiences and opportunities without your help!

Go Blue! ■

Jessica Reid
Commodore of the Quarterdeck Society, 2016

Who to Contact

Need to speak to someone in our Department? Here is a roster of important contacts:

Undergraduate Program Advisor:
Warren Noone
221 NAME Building
Phone: (734) 764-6471
Email: noonern@umich.edu

Graduate Program Advisor:
Nathalie Fiveland
221 NAME Building
Phone: (734) 936-0566
Email: fiveland@umich.edu

Undergraduate Program Chair:
Dale Karr
237 NAME Building
Phone: (734) 764-3217
Email: dgkarr@umich.edu

Graduate Program Chair:
Nickolas Vlahopoulos
214 NAME Bldg.
Phone: (734) 764-8341
Email: nickvl@umich.edu

Marine Hydrodynamics Laboratory:
1085 South University Ave.
West Hall Rm 126
Ann Arbor MI 48109-1107
Phone: (734) 764-9432
Fax: (734) 763-3488

Research and Industry/Government Inquiries:
Steven F. Zalek
Phone: (734) 764-9432
Email: zaleksf@umich.edu
## UNDERGRADUATE Scholarships 2015-2016

<table>
<thead>
<tr>
<th>Scholarship</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMERICAN BUREAU OF SHIPPING SCHOLARSHIP</td>
<td>Taylor Allen, Lucas Barnes, Sarah Blackwell, Jiaxi Chen, James Coller, Samuel Edwards, Robert Emmitt, Nicholas English, Thomas Etheridge, Collin Helm, Clay Kane, Robert Kent, Quincy Lowman IV, Liam McCollum, Mark Parra-Shostrand, Peter Romero, Matthew Schirmann, James Spain, Yuetian Wang, Brandon Michael Harrison</td>
</tr>
<tr>
<td>AXEL MARIN SCHOLARSHIP</td>
<td>Taylor Allen</td>
</tr>
<tr>
<td>BARTON BALLOU COOK, JR. SCHOLARSHIP</td>
<td>Taylor Allen, Robert Emmitt, Quincy Lowman IV, Colin Palmer</td>
</tr>
<tr>
<td>BP M-STEM AWARD</td>
<td>Mikaela Cesario, Quincy Lowman IV</td>
</tr>
<tr>
<td>CARLTON E. &amp; FRANCES E. TRIPP MEMORIAL SCHOLARSHIP</td>
<td>Benjy Jepsen</td>
</tr>
<tr>
<td>COLLEGE OF ENGINEERING SCHOLARSHIP</td>
<td>Sarah Blackwell</td>
</tr>
<tr>
<td>CONOCO SCHOLARSHIP</td>
<td>Lucas Barnes, Elizabeth Callison</td>
</tr>
<tr>
<td>DAVID ASPLAND SCHOLARSHIP</td>
<td>Michele Hill</td>
</tr>
<tr>
<td>DELPHI FIRST ROBOTICS SCHOLARSHIP</td>
<td>James Coller</td>
</tr>
<tr>
<td>EDWARD L. SHEARER ENDOwed SCHOLARSHIP</td>
<td>Mark Parra-Shostrand, James Spain</td>
</tr>
<tr>
<td>FRANK C. AND IRVING PAHLow SCHOLARSHIP</td>
<td>James Garay, Michael Sypniewski, Fudi Wang</td>
</tr>
<tr>
<td>HARRY BENFORD FUND</td>
<td>Sarah Blackwell</td>
</tr>
<tr>
<td>LESTER AND MANDELL ROSENBLATT SCHOLARSHIP</td>
<td>Justin Barden, Teri LaForest</td>
</tr>
<tr>
<td>RAY YAGE MEMORIAL ENDOWMENT SCHOLARSHIP</td>
<td>Michael Tupper</td>
</tr>
<tr>
<td>ROBERT J. AND EVELYN T. KEMP ENDOwMENT</td>
<td>Matthew Anderson, Grant Chaskin, Jacqueline Hong, Clay Kane, Emily Kubik, Jessica Reid, Michael Tupper, Claire Wincott</td>
</tr>
<tr>
<td>SARAH W. LARDNER FUND</td>
<td>Michele Hill</td>
</tr>
<tr>
<td>SOCIETY OF NAVAL ARCHITECTS AND MARINE ENGINEERS SCHOLARSHIP</td>
<td>Elizabeth Callison, Andrew Earhart, James Spain</td>
</tr>
<tr>
<td>WALTER E. LAY SCHOLARSHIP FOR ENGINEERING STUDENTS</td>
<td>Jessica Reid</td>
</tr>
<tr>
<td>WALTER G. MITCHELL MEMORIAL SCHOLARSHIP</td>
<td>Grant Chaskin, Peter Romero</td>
</tr>
<tr>
<td>WILLIAM H. BRAY ENDOwed SCHOLARSHIP</td>
<td>Jessica Reid</td>
</tr>
</tbody>
</table>

## GRADUATE Fellowships 2015-2016

<table>
<thead>
<tr>
<th>Fellowship</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMERICAN BUREAU OF SHIPPING FELLOWSHIP</td>
<td>Eun Jung Chae, Dylan Walker Temple</td>
</tr>
<tr>
<td>SUMMER 2015</td>
<td>Hong Yoon Kim, In-Ho Robin Lee, Marc Owen Wooliscroft</td>
</tr>
<tr>
<td>FALL 2015</td>
<td>Jason Daniel Strickland, Caihao Weng</td>
</tr>
<tr>
<td>WINTER 2015 MASTER OF SCIENCE</td>
<td>Daniel Yong Burke, Brian Thomas Bonomi, Ian Anthony Foster, Kunal Rajeshwar Khanade, Daniel Adam Kowalysyn, Michael Robert Laurence, Jose David Mesa, Wenjie Mi, Shiyu Wang, Brandon Michael Harrison, Kevin Joseph Bowe, Tyler Connor Groll, Jonathan Patrick Holbert, Charlie Isaac Meyer, Kevin Andrew Schumaker, Colin Patrick F Shields, Maeanna Joziwak Stover, Michael Joseph Sypniewski</td>
</tr>
<tr>
<td>FALL 2015 MASTER OF SCIENCE</td>
<td>Eduardo Alexander Iscar, RuiLand, Rui Wang, Xiao Zhang, Akshay Bhansali, Shiqing Jin, Xuan Li, Man Mohan, Fudi Wang, Sara Laffin</td>
</tr>
</tbody>
</table>
More than 70% of our planet is covered by water.

95% of all world trade involves marine transportation

76% of all US trade involves marine transportation

1 GAL FUEL + 1 TON FREIGHT =

TRUCK

TRAIN

SHIP

0 100 200 300 400 500 MILES

There are 18 million recreational boats in the US.

There are 110,000 fishing vessels in the US.

There are 350,000 jobs generated by the recreational fishing industry.

There are 147 million ferry boat passengers per year in the US.

There are some 55,000 cargo ships at sea at any given moment.

There are 10 million passengers per year carried by half of the worldwide cruise ship fleet located in the US.

There are over 7,000 offshore platforms around the world in water depths up to 1,850M.

EMPLOYs 8 million Americans

US MARINE TRANSPORTATION INDUSTRY

25,000 miles of inland and coastal waterways

18,000 bridges

240 locks

97,000 aids to navigation

360 captains, mates and vessel pilots

25,000 miles of inland and coastal waterways

460,000 miles of oil pipeline

12,400 miles of coastline

1,900 cargo terminals

1,000 harbor channels

Stay SOCIAL with Naval Architecture and Marine Engineering!
Professors Robert Beck and Kevin Maki hosted the 31st annual International Workshop on Water Waves and Floating Bodies. The Workshop welcomed 66 engineers and scientists from over 12 countries who presented 40 technical papers around water waves and their effects on floating and submerged bodies.

Professor Pingsha Dong and Assistant Professor Matthew Collette are collaborating on methods to predict, monitor and reduce distortion on lightweight steel shell structures. Working as part of a joint industry-government-academic team the two professors and their researchers are studying welding and fixturing impacts on cumulative fabrication-induced distortion through a mixture of numerical and experimental modeling. This work is be carried out as part of LIFT institute in Detroit, which is one of the founding institutes in the National Network for Manufacturing Innovation.

Professors Robert Beck, Steven Ceccio, and Marc Perlin were named to the following committees for the International Towing Tank Conference consecutively. Advisory Council, Propulsion Council, Energy Saving Methods Committee.

Matthew Johnson-Roberson
Leading the state-of-the-art development of marine robotic 3D mapping for underwater archaeology, our University of Michigan-based team recently returned from an archaeological field expedition to the underwater city of Port Royal, Jamaica. Fieldwork for this two year project, funded by the NOAA Office of Ocean Exploration and Research, began with a weeklong effort to map the submerged city.

Professor Robert Beck was presented with a lifetime achievement award, “In grateful recognition of significant lifetime contributions to Marine Hydrodynamics,” at the 34th International OMAE Conference.

Professor Steven Ceccio assumed chairmanship of the governing board for the 10th International Conference on Multiphase Flow in Rio de Janeiro, Brazil 2019.
Stay social with Naval Architecture and Marine Engineering!

The Regents of the University of Michigan:
Michael J. Behm, Grand Blanc; Mark J. Bernstein, Ann Arbor; Laurence B. Deitch, Bloomfield Hills; Shauna Ryder Diggs, Grosse Pointe; Denise Illitch, Bingham Farms; Andrea Fischer Newman, Ann Arbor; Andrew C. Richner, Grosse Pointe Park; Katherine E. White, Ann Arbor; Mark S. Schlissel (ex officio)

The University of Michigan, as an equal opportunity/affirmative action employer, complies with all applicable federal and state laws regarding nondiscrimination and affirmative action. The University of Michigan is committed to a policy of equal opportunity for all persons and does not discriminate on the basis of race, color, national origin, age, marital status, sex, sexual orientation, gender identity, gender expression, disability, religion, height, weight, or veteran status in employment, educational programs and activities, and admissions. Inquiries or complaints may be addressed to the Senior Director for Institutional Equity, and Title IX/Section 504/ADA Coordinator, Office for Institutional Equity, 2072 Administrative Services Building, Ann Arbor, Michigan 48109-1432, 734-763-0245, TTY 734-647-1388. For other University of Michigan information call 734-764-1817.

© 2016 Regents of the University of Michigan