



Making Waves

- Welcome new students, faculty, and staff!
- 13SEAs Pizza Lunch Sept. 6
- Goodbye, Justin Manley

Highlights:

Summer Vacation	2
Student & Faculty Spotlight	3
US Commission on Ocean Policy Meeting	5
MOTN Workshop & SNAME Conference	7
Upcoming Events	8

Back to school daze

Welcome to the 2002-2003 school year and to the second year of the Course 13 Student Engineering Association (13SEAs). The new 13SEAs officers have already begun planning events including lunch seminars, socials, BBQs, and conference activities. I would like to encourage all students to become 13SEAs members – benefits include discounts on books and conferences, scholarship opportunities, free resume postings, members-only

events, and more.

Everyone is invited to meet the new officers and the new members of the department at the **13SEAs pizza lunch Monday, September 6, from 12:00-1:30 in the Spofford Room (1-236)**. Membership applications will be available at the lunch and also in 5-225 so bring your checkbook. This edition of Making Waves spotlights the upcoming SNAME conference being held in Boston from Sept. 25-28.

13SEAs has played a significant role in planning the student program and we hope you will participate in the conference. I hope you enjoy reading the 5th edition of Making Waves and we look forward to working with the department and with the Acting Department Head Henrik Schmidt this year.

Anna Michel
 amichel@mit.edu
 President, 13SEAs

Prof. Henrik Schmidt, Acting Department Chair

It is with great enthusiasm that I address you as Ocean Engineering's newest department head. By way of introduction, I've been an OE faculty member since 1987, associate research director at the MIT Sea Grant Program since 1989, and associate department head since 1994. Over the last decade I've been developing a multi-disciplinary, systems oriented approach to the solution of scientific and technological ocean related problems. In addition, my fundamental acoustics research is centered on the

development of physics-based numerical modeling capabilities for the ocean acoustic environment.

I am greatly looking forward to meeting all of you over the next year and am confident of the department's ability to engage you in meaningful research and study. Those of you interested in becoming part of one of the many ocean-related projects currently underway should contact our faculty, our UROP Coordinator (Dr. Tom Consi) or the 13SEAs leadership for information.



On behalf of the faculty and staff, welcome!

Henrik Schmidt
 Acting Department Head
 MIT Ocean Engineering

How I spent my summer vacation....

Steve Ramsey (13A) and his wife Corinne spent a nice weekend in Mystic at a charming bed and breakfast, then picked up her mother from the Providence airport on the way home. While her mom was in town, they took trips to Sturbridge, Rockport, and Provincetown. Steve writes, "during that week, **Mike Temme, Andy Gish** and I took a trip down to Electric Boat (since we're 13A's) and got a good tour of the USS Virginia and USS Jimmy Carter. After the mother-in-law left, we had a one day break and then my mom came in to town! We went whale watching, walked the Freedom Trail, went to Salem and the museum of fine arts while she was here. Overall, my wife and I have seen more of eastern Massachusetts in the last two weeks than in the last year we've been here."

Melissa Harness ('02/G) spent her free time with her aero-astro fiancée, Praxedis Flores. Her exciting summer consisted of "Wedding planning!! Honeymoon reservations...registering for gifts...picking out invitations..." Melissa and her fiancée will be wed in December. Congratulations Melissa! Between choosing china and flatware, Melissa made time to prepare a flapping foil module for testing in the water tunnel. Melissa said, "It was pretty cool having a very flexible schedule, but once school starts it's going to be BUSY..."



Qiao Hu (G) returned to China for almost a month to spend time with his parents and sisters, and most importantly, brought his almost 7-year-old daughter back with him to the United States. While in lab, Qiao worked on an algorithm that will automatically decide if an object is in focus on a video frame for use on a Video Plankton Recorder System.

Qiao Hu and his daughter smiling in Killian Court after he brought her back from China.

Kai McDonald ('03) spent the summer surfing up and down the California coast, rafting on the American river, and camping with friends while working as an intern at the Monterey Bay Aquarium Research Institute on a project called the ESP (Environmental Sample Processor). The ESP is an instrument designed to aid in studying the population dynamics of harmful algae and other microorganisms. The ESP was designed to autonomously perform these technical tasks in-situ and alert on-shore personnel when target organisms are detected. Kai worked on a future generation ESP that scientists wish to deploy at 4000m. Kai was assigned with the task of designing and building a sample depressurization device so that the high-pressure seawater at depth can be pumped into the ESP, which will be placed in a pressure housing at 1 ATM. Although the device is not quite seaworthy, Kai performed several bench tests that demonstrated the effectiveness of the design. Kai had a great time working at MBARI this summer playing beach volleyball at lunch, attending MBARI-wide BBQ's, and participating in a research cruise aboard the *R/V Western Flyer* where he saw their ROV in action.

Lincoln Sise (G) worked at Raytheon, in El Segundo, CA, improving the cable assembly operations used on satellites. Though the site has little to do with Ocean Engineering it is near the beach so he figured that he at least had the correct location for an OE student. According to Lincoln, the highlight of his summer was "sitting in the driver's seat of a Bradley Tank. It does not seem to matter how old you are - sitting in this tank (which floats, by the way) with this huge canon over your head just brings a smile to anyone's face!"



Senior Kai McDonald working hard at MBARI.

Meghan Hendry-Brogan ('03) traveled to Ecuador to visit her brother, sister-in-law, and three nephews, Elijah, Zachariah, and Nathan. While she was in the jungle, Meg explored a cave with some local men and had a bat fly into her shoulder! After being attacked by a bat, Meg returned to her native Florida where she was introduced to the world of defense contracting through an internship for Perry Technologies, a division of Lockheed Martin. Unfortunately her assignments were on a classified project so she could not elaborate. Though she enjoyed the internship, her project was still in its conceptual phase making the work mostly "desk engineering." Meg described it as "a lot like doing 10 straight weeks worth of problem sets. Not so exciting,

Johanna Mathieu ('04) went to London and Cambridge for a week right after finals where she saw a bunch of shows and did a whole lot of fun touristy things. Johanna had a fellowship at the University of Rhode Island Graduate School of Oceanography in Narragansett, RI, researching the potential applications of underwater chemical sensors to underwater archaeology. She even designed a sensor for this purpose. According to Johanna, "It was a lot of fun and great to be on the coast all summer!"

Continued on page 6

Welcome, Associate Professor Alexandra Techet!

13SEAs welcomes OE's newest faculty member, Alexandra Techet. Prof. Techet received her bachelor's degree in Mechanical and Aerospace Engineering from Princeton University. She received her master's and PhD degrees in Oceanographic Engineering from the



MIT/WHOI joint program. Her PhD work focused on the hydrodynamics of fish swimming. Techet then spent a year as a post-doctoral fellow at Princeton working with Professor Lex Smits in the Mechanical and Aerospace department. This summer she returned to MIT as an Assistant Professor in Ocean Engineering. Techet was awarded the Doherty Professor for Ocean Utilization. Endowed by the Henry L. and Grace Doherty Charitable Foundation, the two-year Chair opens the way for promising, non-tenured professors to undertake marine-related research

that will further innovative uses of the ocean's resources.

Techet's research takes an experimental approach to marine hydrodynamics problems through qualitative flow visualization and quantitative flow measurement. This research focuses on fluid-structure interactions, specifically vortex-induced-vibrations and their impact on offshore structures; vorticity control, for drag reduction and propulsion in surface and underwater vehicles; and boundary layer control, through fish-like swimming motion. Other research interests lie in the development of flow



measurement and visualization methods. Professor Techet will be teaching 13.012, Introduction to Marine Hydrodynamics for undergraduates, and will be the Junior class advisor. Outside of MIT, Techet is an avid water-polo player and referee and enjoys SCUBA diving, fishing, and sailing.

Student Spotlight...Sacha Wichers

Born and raised in Holland, Sacha Wichers is a 1st year Applied Ocean Physics & Engineering (AOP&E) graduate student in the MIT/WHOI Joint Program. She is studying hydrodynamics, applied math and underwater vehicles and hopes to work with Professor Triantafyllou and the Deep Submergence Lab. Her undergraduate degree in Naval Architecture comes from the University of New Orleans where she was the first student to graduate Summa Cum Laude. Sacha left on a Research Cruise with Hanu Singh of the WHOI Deep Submergence Lab (DSL) on the 23rd of August. They traveled to

Bermuda to study the existence of reefs deep under the sea surface as an indication of climate change and rising ocean levels.

-What are your short-term goals here in the joint program?

Survive, and meet many very interesting and smart



people.

-In the long run where do you hope your education and career will take you?

I would like to own my own marina some day.

-What sort of non-academic activities do you participate in?

I love sailing and swimming. I also like to hang out with family and friends and spend Sunday afternoons watching Saints football while having crawfish boils - two things I will miss here in the Northeast.

-Tell me more about your sailing adventures.

My husband and I did two Transatlantics together as

paid crew. Offshore sailing is great; it requires you to push yourself to the limit, but there is no better place to watch the stars at night.

-You have had some very exciting and interesting work experiences. Tell us more.

I've worked, lived, and sailed on different boats. The most interesting boats I worked on were Coast Guard Vessels; the government just has the best toys. My favorite sailing vessel was an old BOC racer complete with 10 ft of keel and a bulb, no interior except for a gimballed nav station, and a B&R rig. Radically changed my idea of what a sailboat should be like.

Oceans 2002
 Marine Frontiers:
 Reflections of the
 Past,
 Vision of the
 Future

From ocean exploration and engineering to modeling, simulation, and visualization, and for marine education to navigation, this conference and exposition promise to meet a variety of scientific, federal, and industrial interests.

Student Registration: \$100
 Biloxi, MS
 29-31 October 2002
www.oceans2002.com

Ocean Engineering A-B-SEAs

Wondering what the meaning of those cryptic letters on your reg form mean? Well, here's the skinny...

Course 13: Ocean Engineering.

13A: Naval Architecture and Marine Engineering.

13B: Ocean Systems Management.

13C: The little-known undergraduate opportunity to receive credit for industry internships.

13W: MIT/WHOI Joint Program

Farewell, Justin Manley *So long, and thanks for all the fish!*

13SEAs would like to thank our 2001-2002 Marine Technology Society (MTS) sponsor Justin Manley for all of his help during our inaugural year. Justin's work included acting as the MTS liaison, entertaining us with the Junkyard Wars lunch seminar, being the keynote speaker at the SNAME MIT boat cruise,

attending the national MTS conference, Oceans2001, and working to establish an internship program.

Justin received his BS in 1996 in Ocean Engineering and History and his MS in 1998 in OE and remained on campus, working at MIT Sea Grant. Justin recently left his

position as Research Engineer at Sea Grant and Manager of the AUV Lab to begin a new endeavor at Mitretek Systems in Falls Church, VA. 13SEAs will miss Justin and the great guidance he has provided us. We wish Justin and his wife Paula all the best in their new home.

New Kids on the Block *Sophomores and graduate students*

13SEAs would like to welcome those with the right stuff....

...New Sophomores: Jesse Chandler, Stephen Fantone, Jesse Austin-Breneman, Olivia Leitermann, Margaret Loftus, Cosimo Malesci, Umberto Malesci, Adrienne Yandell, and Thomas Hennessey.

...And graduate students of...

...Ocean Engineering: Iason Chatzakis, Joseph Curran, Jason Dahl, Xiaoxia Dong, Jessica

Donnelly, Stephen Geiger, Melissa Harness, Kwang Lee, Xiang Li, Song Liu, Hwee Min Low, Karl-Magnus McLetchie, Harish Mukundan, Susan Swuthenbank, and Deanelle Symonds.

...Naval Architecture/ Marine Engineering: Onur Gecer, Omri Pedatzur, Christian Brown, Robert Gold, Georgis Gougoulidis, Wun-Hoa Jai, Andrew Johnson, Bryan Miller, Jonathan Rucker, Peter Small, Gregory Tozzi,

Daniel Wang, Edward West, Robert Wolf, and Fragikos Zouridakis

...Ocean Systems Management: Angelos Boutsikas, Richard Connell, Vasileios Maroulis, Leon Patitsas, and Cameron Price.

...MIT/WHOI Joint Program: Robert Crofoot, Sacha Wichers, Mark Rapo, and Stephen Roe.

Are you tough enough?

Hooray for New Classes! *New classes – Fall 2002*

13.EPR UPOP Reflective Learning Experience

The Undergraduate Practice Opportunities Program (UPOP) Reflective Learning Experience provides engineering sophomores the opportunity to reflect and share their summer practice experiences as related to the topics of the

IAP course and students' academic subjects through a written report and an oral presentation delivered at a UPOP Symposium in the fall. During the spring semester, students must find a faculty sponsor who is willing to review their report and presentation, nominate them for the UPOP Symposium, and

assign their grade. During the summer, students work with advisors from their organization to develop a theme for the presentation and report. In developing a theme, students are required to conduct additional research. For more information, contact Prof. Dick K.P. Yue at yue@mit.edu.

Catch of the Day *MTS summer meeting at WHOI*

13SEAs President Anna Michel attended the MTS summer meeting that took place on July 25th at the Woods Hole Oceanographic Institution. The meeting began with a tour of the WHOI archives where early oceanographic instruments were on display. Many of the instruments were developed by Stommel, Doc Edgerton, and Benthos Founder and MIT alum Samuel Raymond. The collection included historic current meters, cameras,

tilt meters, and bathythermographs. After the tour, MTS members enjoyed a traditional clambake. The evening concluded with a talk by Ocean Commissioner Paul Kelly who discussed the role of the commission. All MTS student members are encouraged to attend the next MTS meeting. These meetings are great opportunities to learn about current issues in ocean science and technology and for networking with those working in the field.

U.S. Commission on Ocean Policy Addresses New England's Concerns

The U.S. Commission on Ocean Policy, Northeast Regional Public Meeting was held in Boston on July 23-24 at Faneuil Hall. Several OE students, especially those with a strong interest in ocean management, attended. At the Boston meeting, the Commissioners and the public saw presentations on coastal and ocean issues of concern to the Northeast. The agenda included invited speakers representing local and regional government agencies and non-governmental organizations. The prevalent theme was the need for better planning among the agencies that manage water resources. Several speakers and the issues that they raised are highlighted here.

Robert Ostrom, Chief Counsel for the Maritime Administration discussed the need for integrated land and maritime transportation, especially along the Eastern Seaboard, where trade is expected to grow 3-4% per year and to grow by almost 11,000 truck

containers per day, equivalent to one truck every 270 yards on Interstate-95 from Florida to Maine. He emphasized that the U.S. needs to make better use of waterborne transportation, such as barges and ships, for carriage of containers along the coast because highway planners cannot provide enough capacity. Landside access for trucks leaving ports is the main problem for increasing coastal trade, as a container takes one day to leave Port Elizabeth, NJ, by barge but as long as five days by truck due to congestion at terminals and on local road and rail networks. Ostrom sees building an integrated marine and land transportation network to be a major national asset, and notes that such a system is vital in times of crisis, such as when the New York city ferries were used to evacuate 700,000 commuters after the Sept. 11th terrorist strikes there.

Colonel Thomas Koning, New England District Engineer for the U.S. Army Corps of Engineers noted

that Ocean Policy laws need to be more streamlined because they affect water and land use. For example, CWA and MPRSA are two statutes governing the disposal of dredged materials, and they are inconsistent. Koning notes that there needs to be a prioritization made on which ports we will pay to dredge deeper to accept the increasingly deep-draft container ships that are being built. Currently Congress doles out money to most States with ports for harbor maintenance. The current system results in everyone losing, as no port can afford to maintain a deep enough channel indefinitely for the latest ships.

Koning stated that there needs to be a uniform policy about private use of federally-managed ocean areas, and that leases should be charged for these areas. An example is the effort by Cape Wind Associates to build 170 power-generation windmills each 426 feet tall

Join 13SEAs!

Who?
You.

What?
Membership in the Society of Naval Architects and Marine Engineers, the American Society of Naval Engineers, the Marine Technology Society, the IEEE/Oceanic Engineering Society, and the Marine and Oceanographic Technology Network.

Why?
Scholarships, internships, conferences, book discounts, seminars, workshops, travel discounts, credit cards, professional development, networking, need I say more?

When?
Now. Membership packages will be available at our first meeting – September 6 from 11:30-1pm in the OE Conference Room, 5-314.

How?
Fill out a membership package and bring your checkbook. 13SEAs will subsidize memberships. Such a deal!

Continued on next page

Summer Vacation, continued

Katie Wasserman ('04) described her exciting summer, "I got to go on a decommissioned ship, the USS Barry. There's a tent on the weather deck of the ship, and back in the day, it was used for parties! Party ship! I went to a presentation given by the Pres. of the marine salvage company that raised the Kursk, the Russian sub that sank 2 years ago with all the Russian sailors in it, and it was international news. I saw a 3D animation of how the salvage was done. I went to the fourth of July fireworks on the national mall, because I'm in the middle of DC." Katie worked at NAVSEA and ONR (Office of Naval Research). "It was awesome. There were 4 other interns who were ocean engineers or naval architects. We're having fun, and the office is filled with engineers who are crazy about what they do. One of the engineers at NAVSEA, Phil Sims, has an entire apartment filled with books about navy ships. They all think outside the box, like making a model of a tumblehome hullform to convince the admiral that tumblehome was, in fact, a possibility when all other attempts to convince him failed."

Erik Oller (G) described the highlight of his summer "I went to the Boston Pops 4th of July preview concert on the night of the 3rd. I'd been meaning to take my wife to a Pops concert while we were at MIT, and this provided the perfect opportunity." When not enjoying live music by the Charles, Erik spent his time studying the hydrodynamics of a UUV developed by WHOI and spent time at the Naval Academy conducting research in their tow tank.



Congratulations to Kelli (G) and Heath Hendrickson on the birth of their baby, Annaleise Jean. She was born on August 24th and weighed 9 lbs 2 oz!

Congratulations to John Hootman, winner of the SNAME Undergraduate Paper Honor Prize. Melissa Harness'02 was awarded 2nd Place for her SNAME paper. Hootman, his Webb cohorts, and Melissa will be honored at the SNAME Annual Meeting.



Katy Croff and Chief Jason Pilot Will Sellers assembling the new ROV Jason. Photo by L. Whitcomb

Between SCUBA diving, sailing, and battling Cape Cod traffic, Past President **Katy Croff** (G) worked at the Woods Hole Oceanographic Institution on the final construction and testing phase of the second remotely operated vehicle, *Jason*. The new *Jason* is a 6500-meter ROV that has been developed by a large team of scientists and engineers from WHOI's Deep Submergence Lab and Johns Hopkins University. After a series of dock trials in the early summer, Katy traveled with the *Jason* gang to test the vehicle at the Juan de Fuca Ridge, off northern Oregon, while aboard the *R/V Atlantis*. And now we begin construction of a similar vehicle for the Southampton Oceanography Centre, of the University of Southampton....

Ocean Commission, continued

Senior Kai McDonald was awarded the Wallace Prize, the highest honor for an MIT Ocean Engineering undergraduate. Congratulations, Kai!

in the Nantucket Sound. Opposed by the Alliance to Protect Nantucket Sound, the windmill developers currently would not need to pay anything to the U.S. or local governments or communities for the use of 28 square miles of the sound even though there is an impact on fishing, navigation, and aesthetics.

Dr. Jamie Geiger, Asst. Director of the Northeast Region of the U.S. Fish and Wildlife Service,

emphasized the need for conservation and regulations based upon science. Geiger wants better tools for the Service. Water resources need better study, especially in the Northeast where sufficient water supplies are assumed, in contrast to the West where water is more actively conserved. Diseases in fish, birds, and algal blooms need attention. Geiger noted that aquatic nuisance (non-native) species, such as the zebra

mussel, are the largest threat to marine organisms other than habitat degradation. Over 4,000 non-native plants and 2,300 fish/mammals cost billions of dollars yearly to industry. An active program to prevent or destroy such pests needs to be developed and implemented to avoid future problems.

To learn more about the ocean commission, visit www.oceancommission.gov

MOTN's 3rd Offshore Technology Workshop

During the week of September 23-25, 2002 leaders in marine technology manufacturing and services will gather to provide hands-on training and at-sea equipment demonstrations on the latest products. Products and services to be featured include: current measurement devices, underwater imaging systems, side scan sonar, sub-bottom profilers, data acquisition systems, echosounders, acoustic releases, electronic charting software, real time environmental monitoring systems and much, much more.

Product engineers will demonstrate equipment and discuss applications

on a wide variety of new and existing products. This is a great opportunity to meet with design engineers who can instruct you on the fine points of equipment operations. There will be an opportunity each day to board one of several research vessels that will be provided by MOTN members to see some of the new products operate in the waters off Plymouth, MA.

Student registration is \$15. For more information, see www.motn.org or contact Maggie Merrill at martrep@aol.com.

The schedule is as follows...

Monday September 23

12-4pm MOTN Golf Scramble
4-6pm Registration
4-6pm Tours of Research Vessel Fleet
6-7:30pm Welcoming Reception

Tuesday September 24

8am-4pm MOTN Training Workshops
8:30- 3:45PM Hypack Mini-Camp
8:30- 12:15PM Argos Workshop
10am-4pm At Sea Equipment Demos
1:15-3:45pm MTS/NE Technical Speakers
6-7pm Cash Bar at Plymouth Plantation
7-9pm Lobster and Clam Bake

Wednesday September 25

8am-4pm MOTN Training Workshops
8:30am- 3:45pm Hypack Mini-Camp
8:30am- 12:15pm Argos Workshop
10am-4pm At Sea Equipment Demos
1:15-3:45pm MTS/NE Technical Speakers

13SEAs and the SNAME Student Steering Committee

Over the past two years, the Society of Naval Architects and Marine Engineers (SNAME) has been working to increase student involvement at all levels of the Society with its newly formed Student Steering Committee (SSC). The SSC is an organization composed of and run by students whose goal is to improve student involvement in SNAME, and to promote unity between schools as well as interaction between industry and academic programs. Most significantly, the Society has recognized the important role that students can play by granting them seats on the Executive and standing committees. Other efforts included the creation of a website (http://www.sname.org/student_sections/index.htm) and internship and mentoring programs.

13SEAs is playing an active role in the SSC led by Graduate Student John Hootman, who has served as the MIT SSC member for the past year. 13SEAs was chosen to plan and lead the student design competition as well as a student reception at this year's Annual Meeting, to be held here in Boston at the Westin Copley Place, Sept 25th-28th. The design competition is an annual event at which students are given the materials necessary to build an ocean vehicle that must satisfy certain design criteria. Some of the best naval architects and marine engineers in the world will judge each vessel during water trials, and the winning team will receive \$300. All MIT students who attend the conference are encouraged to compete! The student reception, SeptemberFest, will be held in the Hart Nautical Gallery. Food and drinks will be served and all 13SEAs members are invited. We look forward to further and more involved support of the SSC and we want to encourage everyone to attend this year's Annual Meeting. Student admission to the conference is available for \$85. For more information, please visit: http://www.sname.org/AM2002/am2002_student.htm.

Volunteers wanted!! To work at the SNAME publications and information booth and as assistants for tech papers sessions, Wednesday, Thursday and Friday. E-mail Denny Mahoney (dmahoney@mit.edu) with your availability.

Student Program at the SNAME Annual Meeting

See SNAME conference schedule for more details

- **Student Job Fair:** Wednesday, Sept. 25, 10:00am - 4:00pm
- **Ship Production Symposium Closing Panel & Student Exchange:** Thursday, Sept. 26, 4:30-5:30pm. Panel discussion by shipyard executives including a discussion for young people considering careers in shipbuilding.
- **MIT Student Section Reception:** Thursday, Sept. 26, 6:00pm-8:00pm. MIT, Hart Nautical Gallery.
- **Student Congress Team Competition:** Friday, Sept. 27, 8:00am - 12noon. Design a fictitious company and convince a "big spending" customer to hire your company to design and build an experimental vessel.
- **Student Steering Committee Planning Session:** Friday, September 27, 2002, 5:00pm-7:00pm.
- **MIT Ocean Engineering Alumni Reception:** Friday, Sept. 27, 6:15pm. Meet MIT alumni at a cocktail reception.

Making Waves Staff

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We're on the Web!
web.mit.edu/13seas

Submit your news, notes, and OE anecdotes to:
13seas-news@mit.edu



New 13SEAs Officers 13seas-officers@mit.edu

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Ms. Maggie Merrill, MOTN
Prof. Alexandra Techet, MIT OE

Looking Ahead...

Date	Time	Place	What's goin' on
9/3	4pm	Kresge Pits	Ocean Engineering BBQ
9/9	12-1:30 pm	1-236	13SEAs Welcome Pizza Party
9/12	4:30pm	US CGA	SNAME/NE Mtg. – Coast Guard DeepWater Program. Contact vandiss@aol.com
9/23-25		Plymouth	MOTN Offshore Technology Workshop – www.motn.org
9/26	6-8pm	Nautical Gallery	Septemberfest
9/25-27		Boston	SNAME Conference
10/14-15			Columbus Day Holiday
10/18-20			Family Weekend
10/29-31		Biloxi, MS	MTS/OES Oceans 2002
TBA	TBA	MIT	SNAME/NE Mtg. – Cute AUVs
11/11			Veterans Day Holiday
11/13		TBA	MTS/NE Mtg. – Election of New Officers
11/20	12-1	5-314	Lunch Seminar: Marina Martini, USGS
11/28-29			Thanksgiving Vacation
TBA	TBA	Bath, ME	SNAME/NE Mtg. – Replica ships
12/11			Last Day of Classes
TBA	TBA		13.018 Design Class Presentation
12/16-20			Finals Week
12/18		TBA	MTS/NE Mtg. – New Year for 13SEAs

