

– THE – SEAHORSE

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THSOA Student Outreach Program Off to Great Start at US Hydro 2003

by **Jana DaSilva Lage,**
Mark O'Neal, Erica Summers,
Heath Harwood

At the Hydrographic Society of America (THSOA) meeting in Toronto in May 2002, an inquiry into University of Southern Mississippi (USM) and University of New Hampshire (UNH) graduate student recruitment served as the inspiration for a student outreach program. The goal of the outreach program was to host highly qualified juniors with an interest in working on the ocean at the U.S. HYDRO 2003 conference in Biloxi. Twenty letters soliciting nominees were sent around the country to the Chairmen of departments including geology, geomatics, civil engineering and physics.

Four students were selected, although one was unable to attend due to pressing university requirements. The three students who attended, Erica Summers, Mark O'Neal and Heath Harwood, came from different parts of the country and with quite different backgrounds.

Erica attends California State University, Monterey Bay and is working toward a Bachelor of Science degree in Earth Systems & Science Policy with a major in Marine and Coastal Ecology. Heath is a student at the University of Southern Mississippi in

Hattiesburg and is majoring in Geology. Mark is working toward a Bachelor of Science degree in Geomatics at the University of Florida. All of the students expect to graduate in May 2004.

The students were provided with complimentary conference registrations which enabled them to attend all of the technical sessions, workshops and social events.

In addition, three of our well-known equipment suppliers (Klein Inc., Kongsberg Simrad, and Reson Inc.) stepped up with donations that paid for the students' hotel rooms and transportation.

The University of New Hampshire and the University of Southern Mississippi sponsored a luncheon for the students and supporters, which provided a forum to informally introduce the students to the available hydrography graduate programs at UNH and USM as well as the employment opportunities at NAVO and NOAA.

Another corporate member, Fugro Chance also supported the students, buying a lunch during their stay.

The conference provided all of the students with the chance to learn about the industry, latest technology used for hydrographic surveying, and the educational and employment opportunities available. This gave them

an opportunity to interact with hydrographers, both on a professional and social level.

While the presentations and workshops were interesting, and instilled knowledge, the boat demonstrations provided an applied science aspect that was useful to tie the concepts and technology to the real world. The students found that most hydrographers are very approachable people who have a multitude of great sea stories to tell.

THSOA feels that the Student Outreach Program was a great success, and in summary, here are some words from the students about their experience:

Heath Harwood found hydrographers to be great people, who work very hard and he realizes that it will take some further education to get into the field, but he found the field attractive and was "extremely happy that the (student outreach) program was implemented".

Mark O'Neal: "This was a wonderful experience, I would encourage THSOA to pursue this program further. There is very little awareness about this field among the general college public, even in geomatics/engineering fields."

"In only two days, I have rekindled my excitement for my work in the lab, and for a future career in hydrography. I can't thank you enough. Being able to chat with the leaders of the industry and academia is truly invaluable."

able..." said an enthusiastic Erica Summers.

A few additional post-conference notes: When Erica went back to California, she gave a presentation to the seafloor mapping class and lab, who were upset that they hadn't applied to attend the conference.

In addition, Mark O'Neal is presently working as a co-op for NAVO at Stennis this summer. Heath Harwood will be attending geology field camp this summer, but is planning to inquire about a NAVO co-op position for next summer.

Thanks again to all who helped with this program. We look forward to doing it again in 2005.

(ED. NOTE: Due to space limitations, an overall summary of U.S. HYDRO 2003 is not included in this issue of the Seahorse. Interested readers are directed to page 33 of the June 2003 issue of Sea Technology.) ☼

NOAA's Response To Data Deluge

by Dennis Hill

Everything around us seems to be running at or near the speed of light. From cell phones, to e-mail, to the World Wide Web, data keeps coming at us at an ever-increasing rate.

Much of this is good. Hydrographic projects are planned and exe-

cuted faster than ever before. Within NOAA, for example, plans are already in place for a significant increase in acquisition capability. In addition to the existing vessels RAINIER and RUDE three new acquisition platforms are either on line or will be soon.

The venerable ship WHITING, a stalwart producer for 40 years has been decommissioned and replaced by the LITTLEHALES. This recent addition to the fleet is a potential high-performer, and once fully configured later this year with launches, will easily equal or surpass the productivity of its predecessor.

Another addition this year to the NOAA vessel mix will be a unique combination of contract vessel and NOAA surveyors. During its inaugural year this time-charter vessel will operate in the Gulf of Mexico on an ambitious schedule.

The following year the newly restored ship FAIRWEATHER will be on line and is expected to meet or exceed the output of the current productivity champ, RAINIER.

The corresponding increase in data volumes threatens to deluge the processing centers located in Seattle and Norfolk. Slowdowns there would adversely affect the rate of nautical chart updates. NOAA management is currently reacting to this problem with a multi-faceted approach.

Being fully cognizant there are no silver bullets in the world of information technology, their strategy includes developments in software, data storage, process reinvention and management control.

The details of these ambitious initiatives are well beyond the scope of a single newsletter article. However, for the curious here are some tantalizing bits of information. The software initiative by itself is multi-variant. Building on the now well-known decision to utilize Caris programs in

the field to clean, package and deliver data, NOAA developed sophisticated extensions to Caris' capability.

Known internally as Pydro, a clever acronym resulting from the use of Python programming language to facilitate hydrographic data processing, this powerful tool allows data processors to perform sophisticated analysis on discrete point features such as rocks and obstructions.

The latest modification extends its capabilities into the realm of S-57 attribution. NOAA hydrographers are now capable of performing S-57 attribution in the field.

With up to 40 surveys being delivered annually to the west coast processing center alone, each consisting of at least 15 gigabytes of multibeam data, the need for massive amounts of data handling capability was obvious.

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NOAA didn't just purchase and install more disk storage. Knowing full well that Moore's Law would quickly render obsolete any storage technology decision, NOAA leapt as far forward as possible and invested in the then-emerging Network Attached Storage (NAS) technology.

The results were dramatic. Out went approximately 1/3 tb of RAID technology; in came 1.2 terabytes of NAS. Data is now delivered to the processing centers on portable Max Attach devices and instantly made available over a network by simply plugging them into the parent NAS. The capacity of the system can be easily expanded many fold as needed.

At the same time NOAA embarked on an internal audit of its data delivery pipeline. The goal was to discover areas where improvements could be made with relatively small investment.

The results were very promising. Several major areas were identified for re-invention. Notable improvements were attained in redesigning the labor-intensive cartographic by-products of the surveys.

In addition, such simple changes as eliminating paper reports and replacing them with digital versions yielded benefits throughout the pipeline by eliminating cumbersome administrative handling. But most signifi-

cantly, NOAA challenged its staff to develop a fully S-57 compliant version of processed survey data.

While this latest initiative is still undergoing development it promises to further revolutionize the delivery of data to the navigational chart production system. Details will be discussed in a future article.

These and many more changes to improve the way NOAA does business are possible only because of the efforts of a geographically diverse team.

The technology improvements are, for the most part, being spawned from the Hydrographic Surveys Technology Program directed by LCDR Guy Noll in Silver Spring, MD. The author as well as staff under the direction of CDR John E. Lowell, Jr. and CDR Emily Christman, of Seattle and Norfolk respectively, are developing additional process improvements.

And, of course, our partners in the commercial sector have all stepped up and provided invaluable support and advice. We couldn't have done it without them. ☼

[ED NOTE: see related article, page 9]

NOAA Contracting Update

by Brian Greenawalt

Two firms that were previously awarded multi-year contracts continued operations in FY2003: C&C Technologies in the western Gulf of Mexico, and Thales GeoSolutions (Pacific) in Alaska.

C&C Technologies is currently surveying the safety fairways and anchorage areas southwest of Freeport, Texas. Thales is completing field work in the vicinity of the Shumagin Islands, Alaska, and will soon mobilize to acquire data in the Bering Sea. In addition, NOAA awarded a contract to Tenix LADS, Inc. for hydrographic surveying services anywhere in the United States

using LIDAR. Tenix is currently finishing two task orders in Alaska and will soon mobilize to Long Island Sound.

NOAA selected SAIC to provide services under two new contracts: Hydrographic Services Anywhere Except Alaska and Hydrographic Survey Support Services Aboard a NOAA-Leased Vessel. Awards of both contracts are being negotiated at press time.

In FY2002, NOAA entered into an agreement with the U.S. Navy's Military Sealift Command (MSC) to facilitate a time charter contract, taking advantage of that agency's experience in procuring marine vessel services. MSC issued the solicitation for the time charter of a US Flag vessel to perform hydrographic surveys in the Gulf of Mexico and the near coastal areas of Alaska on August 15, 2002.

In response to questions and comments from potential vendors and special interest groups after the initial advertisement, this single action was split into two separate acquisitions:

- one (issued through MSC) for the time charter vessel, crew, and the hull mounted multibeam sonar system;
- the second (issued through NOAA) for survey equipment and equipment operators using Brooks Act procedures.

The contract for the vessel was awarded to Alpha Marine Services, LLC, of Galliano, Louisiana, on June 19, 2003. The contract for survey support aboard the vessel will be awarded in July.

The time charter provider has 90 days to deliver the vessel after MSC awards the contract. The survey support contractor, SAIC, will then be given 30 days to install, integrate, and test its suite of equipment.

Given the sequence of events described above, survey operations will likely begin in the Gulf of Mexico in October 2003.

Terra Surveys LLC of Palmer,

Alaska, was selected to receive the small business set-aside contract in Alaska. The anticipated award date is August. When awarded, this indefinite delivery contract will run three years, with an estimated value of \$2 million each year for five years. ☼

CHAPTER NEWS

Gulf Coast

by Michael Q. Smith

The Gulf Coast Professional Societies, composed of The Hydrographic Society of America (Gulf Coast Chapter), The Gulf Coast Section of the Marine Technology Society (MTS), the American Meteorological Society, and Sigma XI have continued efforts to conduct successful joint meetings in our region. Laurie Jugan, MTS Chairperson, has led the effort in obtaining speakers for several meetings and continues to work hard for all the professional chapters. We appreciate her efforts.

The Gulf Coast Chapter had the honor of hosting the U.S. Hydro 2003 Conference on March 24-27, 2003, at the Beau Rivage Resort in Biloxi, Mississippi. The conference boasted 505 Registrants and 50 Exhibitors in attendance. We were pleased to have each guest and sincerely hope everyone enjoyed his or her time on the Mississippi Gulf Coast.

Recent monthly meetings have included a number of distinguished speakers. Rear Admiral Thomas Q. Donaldson V, Commander, Naval Meteorology and Oceanography Command discussed the "State of Hydrography — Two Years Later" and its impact on the Navy. It is becoming more commonly known that the U.S. Navy is much more involved with its efforts to create The Hydrographic Center of Excellence at Stennis Space Center, Mississippi.

Another speaker was Darrell Smith, Head of the ECDIS Lab, at the Hydrographic Science Research Center, University of Southern Mississippi, Stennis Space Center. Mr. Smith demonstrated the Digital Electronic Chart being used by the US Navy.

Our March meeting, hosted by MTS, featured Dr. Mike Harris, MTS member and Head of the Naval Research Laboratory's Mapping, Charting, and Geodesy Division. Dr. Harris discussed "Mapping and Charting Research at NRL."

Our May meeting was hosted by the American Meteorological Society. Bill Burnett, President of the local chapter, arranged to have Dr. Patrick Fitzpatrick, Mississippi State University, talk about a summary of presentations from the Interdepartmental Hurricane Conference, with a focus on the latest hurricane research.

This included updates on model developments, 5-day hurricane forecasts, aerosonde field experiments, and reconnaissance field experiments. A discussion on the lack of progress on intensity and rainfall prediction skill was also conducted.

It appears that our meetings will taper off during the summer months but later, this fall, the Joint Societies are planning to meet in Baton Rouge or Lafayette, Louisiana, for a weekend get together that may include a tour and speaker. Please watch your email and be ready to participate in

the exciting events planned later this year. ☼

- Humor from the Internet - WHAT ENGINEERS SAY (AND WHAT THEY REALLY MEAN)

"Major Technological Breakthrough." (*Back to the drawing board.*)

"Developed after years of intensive research." (*It was discovered by accident.*)

"The designs are well within allowable limits." (*We just made it, stretching a point or two.*)

"Test results were extremely gratifying." (*It works, and are we surprised!*)

"Customer satisfaction is believed assured." (*We are so far behind schedule that the customer was happy to get anything at all.*)

"Close project coordination." (*We should have asked someone else; or, let's spread the responsibility for this.*)

"Project slightly behind original schedule due to unforeseen difficulties." (*We are working on something else.*)

"The design will be finalized in the next reporting period." (*We haven't started this job yet, but we've got to say something.*)

"A number of different approaches are being tried." (*We don't know where we're going, but we're moving.*)

"Extensive effort is being applied on a fresh approach to the problem." (*We just hired three new guys; we'll let them kick it around for a while.*)

"Preliminary operational tests are inconclusive." (*The darned thing blew up when we threw the switch.*)

"The entire concept will have to be abandoned." (*The only guy who understood the thing quit.*)

"Modifications are underway to correct certain minor difficulties." (*We threw the whole thing out and are starting from scratch.*)

"Essentially complete." (*Half done.*)

"We predict..." (*We hope to God!*)

"Drawing release is lagging." (*Not a single drawing exists.*)

"Risk is high, but acceptable." (*100 to 1 odds, or with 10 times the budget and 10 times the manpower, we may have a 50/50 chance.*)

"Serious, but not insurmountable, problems." (*It will take a miracle. God should be the program manager.*)

"The project is designed for high availability." (*Malfunctions will be blamed on the operators mistakes.*)

"Requires further analysis and management attention." (*Totally out of control.*) ☼

It's Hard to Call Them Workshops When They Were So Much Fun

by Ray Williams

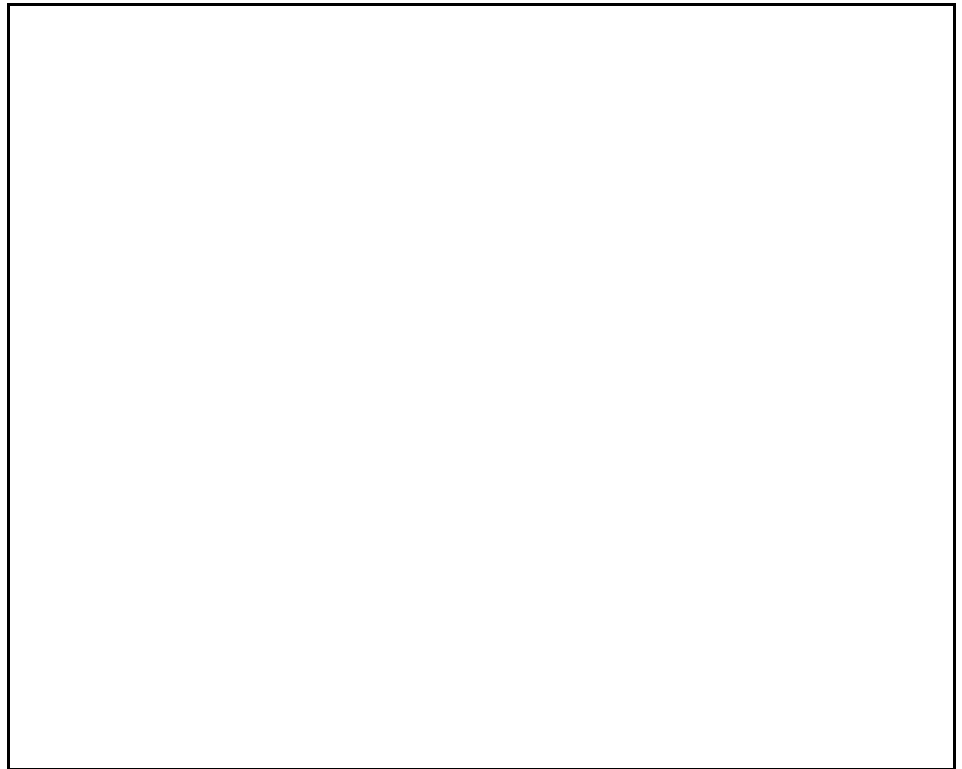
U.S. HYDRO 2003 marked the THSOA's first effort to provide a full conference slate of workshops for the attendees. There were eleven different sessions held at the Beau Rivage during the week of March 24-28.

Although eight of the sessions were held during the conference at no additional costs to registered conference guests, three of the workshops were held outside of the conference dates and had minimal tuition charges assessed.

THSOA was delighted in the response to all these workshops (estimates for the attendance at these sessions was approximately 400 attendees). I thank the students for their support and enthusiasm during the sessions and I apologize to any attendees who felt slighted.

HYDRO 2003 was our first attempt at workshops on such a scale and I feel we have learned a lot about this type of venture.

I would like to take this opportunity to express my sincere gratitude to the coordinators/instructors for making the workshop program such a success — they were outstanding. Personal



Enjoying the social hour at HYDRO 2003 (L-R): Rear Admiral Evelyn Fields, Adam Kerr (former IHO Director), Bill Bergen, Karl Kieninger (Treasurer, THSOA), and present IHO Director Ken Barbor, Rear Admiral (ret.).

recognition must go to Rik Pepe for his outstanding work in resolving the ever-present hardware/software/interfacing problems and my good friend Jack Wallace, whose hard work supported this effort from its conception to its completion.

Although there is a certain amount of product recognition associated with this type of training, THSOA required the focus of these workshops to be Quality Control and general theory of operation. To these ends, the instructors must be commended for their outstanding contribution. At no time were these sessions used as an advertisement vehicle for the software/hardware industry.

We hope to provide workshops for our future conferences and would appreciate your feedback. Do you feel this is a worth-while endeavor? Email your comments to THSOA at workshops@thsoa.org and make the subject line "Workshops — THSOA — 05". We will review all responses and

plan accordingly. We are looking for topics of interest, capable and willing instructors, and no bad feelings.

The last roster of the instructors was heavy on government personnel for a reason — we tried to avoid the perception of favored status to any of our instructors and their product lines. If you feel the workshop program is unfair, please notify us — I would rather cancel the program than deal with the problems of perceived favoritism.

The slate of topics and instructors were top-shelf in my opinion, but I do not want to require these same instructors to shoulder this level of responsibility every conference.

Please suggest new topics and instructors. We are a non-profit organization, so cost is a consideration. We did not require tuition fees for most of the sessions. (NOTE: at sessions where a fee was charged the money went to provide snacks and/or lunch.)

New topics of discussion could

include volume computation, hydro survey contracts, 3-D models, new tidal epochs, single beam QC and theory, etc. — there is no shortage of topics associated with hydrography. If you would like to have some, or all, of the previous topics again, let us know.

This is your Society, it will be your conference in 2005. Help make it as successful as U.S. HYDRO 2003. ✪

U.S. Navy Benefits from USM Hydrography Program

by Judy Isbell

At a time when the United States is looking more and more to a technologically advanced military, The University of Southern Mississippi's (USM) Department of Marine Science is providing a means to enhance that leading edge.

Three years ago, Southern Miss began a partnership with the U.S. Navy to provide an advanced degree program in Hydrographic Science. The military applications of this discipline dictate the movement of naval forces in combat and peacetime. Surveying the underwater landscape in and around target areas can tell the Navy where forces can safely maneuver.

Rear Admiral Thomas Q. Donaldson V is Commander of the Naval

Meteorology and Oceanography Command (CNMOC) at Stennis Space Center. Donaldson was named Hydrographer of the Navy in April 2001. Both officers and civilian employees of CNMOC have graduated from the USM program. "This is a win-win situation," Donaldson said. "People get the training they need immediately without major disruption to their personal or professional lives. In return, the Navy gets trained people without the expense of sending key performers away to school for a year or more."

In the USM program based at the Stennis Space Center, naval personnel attend an intensive one-year program just a few hundred feet from their normal duty stations.

Dr. Denis Wiesenburg, chair of the Southern Miss Department of Marine Science at Stennis and one of the authors of the Hydrographic Science partnership with the Navy, sees this type of cooperative venture as an increasing trend in higher education. "Matching specific educational opportunities with targeted student needs assures the long-term success of both a university and its clients," Wiesenburg said. "USM's presence at Stennis allowed us to deliver graduate education where it was needed most and where it could be put to use immediately."

David Dodd, a 1994 graduate of the geodesy and geomatics engineering program at the University of New Brunswick in Fredericton, New Brunswick, coordinates the Hydrographic Science Program at USM's Stennis site. Dodd said, "The program has evolved to provide both national and international students with an advanced education in a program that has received the highest level of accreditation from the international bodies that are responsible for hydrography and the safety of navigation throughout the world."

In April 2000 the USM hydrography academic program was awarded Category A certification by the Fédération Internationale des Géomètres/International Hydrographic Organization (FIG/IHO) International Advisory Board. This level of expertise in the increasingly technical field has already paid dividends to the Navy.

"I sent three military members from the first graduating class to aircraft carriers in the Arabian Gulf and they stepped into some of the most important roles on their ships," Donaldson said. "One of them was awarded a Bronze Star for performance in combat operations. Our civilian graduates now include 15 international leaders in 'Class A' hydrography at Stennis Space Center."

With 33 graduates already back at work in their various posts within the Naval Oceanographic Office, the graduates are asked to put their knowledge to work as part of the Navy's Fleet Survey Team (FST). The Navy established the FST to fill a need for fast charting of "hot" areas, including areas where the Navy has — or will have — a significant presence, or where existing chart accuracy is questionable. The FST consists of three meteorological and oceanographic officers and two to four civilians.

Lt. Cmdr. Brian Cannon was one of

the first recipients of the USM master's degree in hydrography and one of the first naval officers assigned to the FST. "I think the biggest 'take-away' from the Fleet Survey Team experience was the value of an applied degree," Connon said from his current position as Flag METOC officer for Commander, Carrier Group Five, aboard the USS Kitty Hawk.

Connon added, "The hands-on environment and small class size of USM really made a difference in preparing me for a future in hydrography. We learned the business from the bottom up and can now take that education, apply it to the U.S. Navy's operations, and provide warfighters with that extra edge."

"Upon completion of their Fleet Survey Team tour, naval officers transfer to fleet billets either on major afloat staffs or as the Meteorology and Oceanography Officer aboard an aircraft carrier or large deck amphibious ship," said Capt. Phillip G. Renaud, Commanding Officer for the Naval Oceanographic Office at Stennis. "We prefer that the FST officers transfer to battle group staffs so that they can influence battle group commanders in critical warfighting decision-making regarding battlespace characterization, precise targeting, mine warfare, and safety of navigation."

The FST officers also have famil-

ilarity with military survey ship operations and can advise fleet and battle group commanders regarding those surveys.

During their course work, hydrography students also have an opportunity to participate in ongoing hydrographic research at the university's Hydrographic Science Research Center (HSRC), also located at Stennis.

Don Roman, CAPT USN (Ret.), is the new director of the HSRC. Roman said he envisions a continued relationship with the U.S. Navy, and an expansion of research opportunities with other government and commercial clients.

"The advances in hydrographic science that result from our research directly benefit both the Navy and the wider national and international hydrographic community," Roman said. "Hydrographic surveying, data processing and visualization, navigation, marine resource management, and even homeland security are some of the many activities our research will benefit." ✧

Shallow Water Multibeam Sonar Training

by E.J. Van Den Ame ele and Jerry Mills

To meet continuing worldwide demand, the 32nd Shallow Water Multibeam Sonar Training Course is being offered in Seattle, Washington from December 1-6, 2003. The training facility is located at NOAA's Western Regional Center at Sand Point on Lake Washington.

The course is presented by the University of New Brunswick Ocean Mapping Group and the University of New Hampshire Center for Coastal and Ocean Mapping and jointly hosted by The Hydrographic Society of America (THSOA) and the National Oceanic and Atmospheric Ad-

ministration.

The course aims to prepare and train experienced hydrographers in the use of multibeam sonar systems for hydrographic surveys. In particular it is designed to provide overviews of: (1) the technology associated with shallow water multibeam surveys, (2) processing and visualization techniques designed to address the complexities of swath mapping, and (3) constraints on using swath bathymetry to produce quality data.

While the course content has primarily been aimed toward conventional hydrographers in past classes, the information is increasingly tailored for those using marine swath systems in other fields such as offshore engineering, harbor dredging, fisheries habitat and scientific research.

The course is not designed to provide fully trained multibeam system operators or data processors, but those taking the course will gain an appreciation for further multibeam training and experience needed to gain this expertise. It also provides the ideal grounding for those involved in specifying the requirements for contract multibeam surveys or the acquisition of systems.

Course enrollment is limited to a maximum of 45 participants. The six-day course fee includes all course

materials and lunch each day (but excludes accommodations), and is US\$3,000 per participant. Members of THSOA and the Canadian Hydrographic Association will receive a 10% discount (eight spaces have been reserved until August 15 after which the rate be on a space available basis).

The registration fee includes an ice-breaker social event, a group dinner at an exciting Seattle venue, and sonar system demonstrations aboard vessels. The deadline for registration is October 30, 2003. Reservations will be accepted on a first-come, first-serve basis. A deposit of \$1,500 will secure a space in the class with the balance due by October 30.

A group of rooms has been reserved at the Silver Cloud Inn on Lake Union in Seattle. Nightly room rates are US\$94 for a standard room and US\$104 for a lake-view room (plus applicable taxes for both rates). The hotel is approximately 3 miles from downtown Seattle, is within walking distance of numerous restaurants and amenities, and offers a free shuttle between the hotel and downtown.

Participants must make their own lodging arrangements directly with the Silver Cloud Inn — call 1-800-330-5812. Be sure to mention the “Hydrographic Society of America/Shallow Water Multibeam Training” group to receive the group rate.

Transportation between the hotel and NOAA’s Western Regional Center is included in the class registration fee.

For a registration form, visit www.thsoa.org. Additional course details are available on the internet at www.omg.unb.ca/mbc or by contacting E. J. Van Den Ameele (NOAA) at (206) 526-6840 or via e-mail at Edward.j.vandenameele@noaa.gov.

Initial interest in the class has been very high and it is expected that the class will book quickly, so you are encouraged to register as soon as possible to secure a place in the class.

If you are unable to obtain a reservation for the course be advised that there will be two additional offerings in North America in 2004: January 5–10 in San Diego (contact Woody Sutherland via e-mail at woodys@ucsd.edu) and May 17–22 in Ottawa, Canada (contact Ilona Monahan via e-mail at MonahanI@dfo-mpo.gc.ca).

Be advised that there will be no 10% discount for THSOA members at the San Diego course. The pricing structure for the Ottawa course is not known at this time. ☼

~ Humor from the Internet ~

THE GENESIS OF COMPUTERS

In the beginning God created the Bit and the Byte.

And from those he created the Word.

And there were two Bytes in the Word; and nothing else existed. And God separated the One from the Zero; and he saw it was good.

And God said, “Let the Data be,” and so it happened.

And God said, “Let the Data go to their proper places.” And he created floppy disks and hard disks and compact disks.

And God said, “Let the computers be, so there would be a place to put floppy disks and hard disks and compact disks.” Thus God created computers and called them hardware.

And there was no Software yet. But God created programs; small and big and told them, “Go and multiply yourselves and fill all the Memory.”

And God said, “I will create the Programmer; and the Programmer will make new programs and govern over the computers and programs and

Data.”

And God created the Programmer; and put him at Data Center; And God showed the Programmer the Catalog Tree and said, “You can use all the volumes and subvolumes but DO NOT USE Windows.”

And God said, “It is not Good for the programmer to be alone.” So He took a bone from the Programmer’s body and created a creature that would look up at the Programmer; and admire the Programmer; and love the things the Programmer does; And God called the creature: the User.

And the Programmer and the User were left under the naked DOS and it was Good.

But Bill was smarter than all the other creatures of God. And Bill said to the User, “Did God really tell you not to run any programs?”

And the User answered, “God told us that we can use every program and every piece of Data but told us not to run Windows or we will die.”

And Bill said to the User, “How can you talk about something you did not even try. The moment you run Windows you will become equal to God. You will be able to create anything you like by a simple click of your mouse.”

And the User saw that the fruits of the Windows were nicer and easier to use. And the User saw that any knowledge was useless, since Windows could replace it.

So the User installed the Windows on his computer; and said to the Programmer that it was good.

And the Programmer immediately started to look for new drivers. And God asked him, “What are you looking for?” And the Programmer answered, “I am looking for new drivers because I can not find them in the DOS.” And God said, “Who told you need drivers? Did you run Windows?” And the Programmer said, “It was Bill who told us to!”

And God said to Bill, “Because of what you did you will be hated by all the creatures. And the User will always be unhappy with you. And you will always sell Windows.”

And God said to the User, “Because of what you did, the Windows will disappoint you and eat up all your Resources; and you will have to use lousy programs; and you will always rely on the Programmers help.”

And God said to the Programmer, “Because you listened to the User you will never be happy. All your programs will have errors and you will have to fix them and fix them to the end of time.”

And God threw them out of the Data Center and locked the door and secured it with a password: “GENERAL PROTECTION FAULT.” ☼

UNH and NOAA to Offer Short Course on Tides and Water Levels

by Andy Armstrong

The UNH Center for Coastal and Ocean Mapping and the NOAA/UNH Joint Hydrographic Center (CCOM/JHC), in partnership with NOAA's Center for Operational Oceanographic Products and Services (COOPS) are offering an intensive short course in Tides and Water Levels. The course will run from September 16–19, 2003, at the University of New Hampshire, in Durham, New Hampshire.

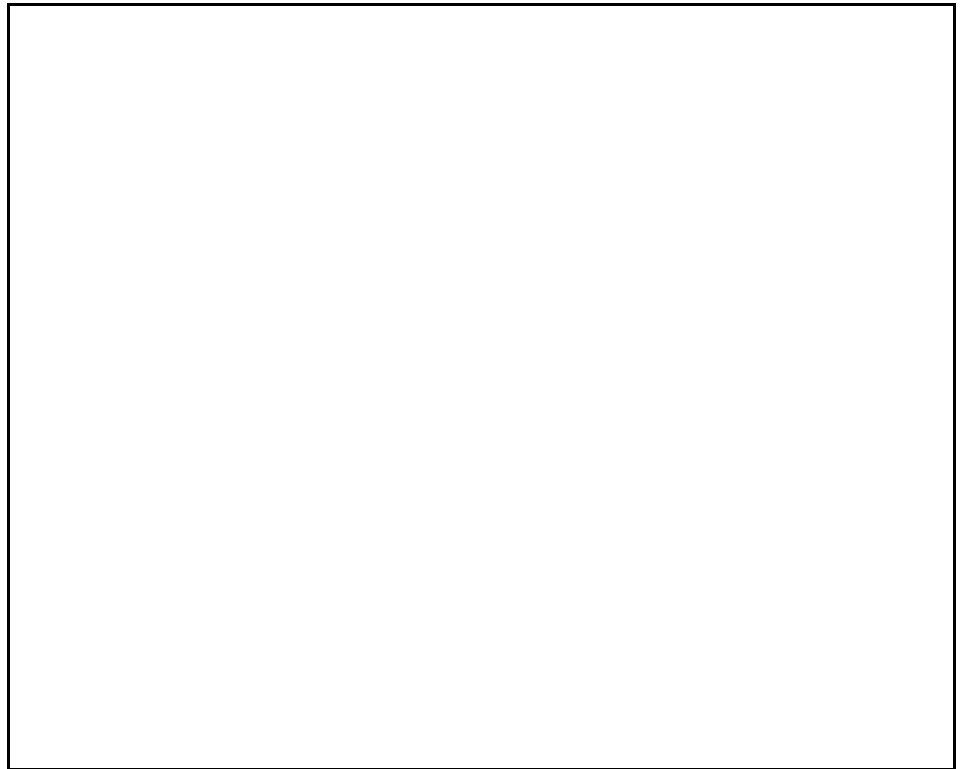
Continuing Education Credits (CEUs) will be awarded for successful completion. UNH is working with the New Hampshire Joint Board of Licensure to obtain CEU recognition for professional surveyors and other professionals attending. These Surveyor CEUs will often apply in other states as well.

The course will deal with the full range of tidal and water level topics. The major topics to be covered are:

- Basic Tidal Theory
- Sea Level Variation
- Water Level Observing Systems
- Tide and Water Level Datums
- Relationship between Tide and Water Level Datums and Geodetic Datums
- Tidal Zoning
- Tidal Support for Hydrographic Surveys
- Emerging Technology
- Kinematic GPS Vertical Surveying

As with any gathering of hydrographers, there will be some social events planned to take advantage of the local specialties. Additional information will be available from the CCOM/JHC website: www.ccom.unh.edu in early July.

For more details contact Andy Armstrong (603.862.4559, andy.armstrong@noaa.gov) at the Joint Hydrographic Center or Steve Gill (301.713.2981, ext. 139, stephen.gill@noaa.gov) at NOAA COOPS. ✪



The LITTLEHALES, soon to be refitted and recommissioned in 2003 as the NOAA ship THOMAS JEFFERSON.

NOAA Ship WHITING Replaced by LITTLEHALES

by Jerry Mills

After 39 years of service to NOAA and its predecessor agency, the U.S. Coast and Geodetic Survey, the NOAA Ship WHITING was decommissioned on May 2 in a ceremony at its home port in Norfolk, Virginia. The ship has been an essential part of the NOAA fleet, working in support of NOAA's mission to ensure safe navigation of the nation's coastal waterways.

WHITING deployed last year to the Virgin Islands, Gulf of Mexico and the southeast coast of the United States in support of homeland security and nautical charting and returned in November. This deployment marked an end to its 39 years of service.

Commissioned in 1963, the ship has successfully completed deployments from Duluth, Minnesota to Honduras and all waters in between.

WHITING has also played an important role in disaster response for the nation. It was one of two NOAA ships that were instrumental in finding the wreckage of John F. Kennedy Jr.'s aircraft in 1999. That same year, WHITING located the primary wreckage fields of downed Egypt Air 990 off the coast of Massachusetts.

WHITING is named for Henry Laurens Whiting, a 19th century engineer who served in the U.S. Coast and Geodetic Survey from 1838 until his death on February 4, 1897. In addition to being the leading topographer of the United States during the nineteenth century, he served as professor of Topographic Engineering at M.I.T. and an instructor in harbor surveying at the U.S. Naval Academy.

The decommissioning of the WHITING was made possible by the March 3 transfer of the U.S. Naval Ship LITTLEHALES from the U.S. Navy Military Sealift Command (MSC) to NOAA.

LITTLEHALES, like WHITING, is

capable of carrying two hydrographic survey launches, but is about one third the age and more cost efficient to operate. The 208-ft. hydrographic survey vessel was built by Halter Marine, Inc. in Moss Point, Mississippi and delivered to MSC in January 1992 to conduct surveys for the U.S. Naval Oceanographic Office.

The ship spent most of the next eight years in the Mediterranean and Middle East surveying along the coasts of Tunisia, Egypt, Albania, Croatia, Oman and the United Arab Emirates.

LITTLEHALES returned to the U.S. in the summer of 2001 for a complete overhaul/equipment upgrade after which it conducted homeland defense support surveys in the U.S. until her turnover to NOAA.

The ship is named for George Washington Littlehales, who served the U.S. Navy Hydrographic Office from 1885 to 1932. He was a world-renowned authority in the fields of magnetics, hydrography, oceanography, and cartography.

The LITTLEHALES will be commissioned as a NOAA vessel on July 8, 2003 and will be renamed the NOAA Ship THOMAS JEFFERSON in honor of the third President of the United States. As a result of President Jefferson's recommendation, Congress established the "Survey of the Coast"

on February 10, 1807 which was the predecessor organization to NOAA's Office of Coast Survey.

The JEFFERSON will acquire hydrographic survey data for updating nautical charts in U.S. waters, primarily along the Atlantic coast and the Gulf of Mexico. The ship will be home ported in Norfolk, Virginia. ☼

[ED NOTE: see related article, page 3]

New Director To Head Office of Coast Survey

Captain Roger L. Parsons, NOAA, has been named the new Director of NOAA's Office of Coast Survey. He will relieve Captain David B. MacFarland, NOAA, on September 1, 2003. Captain MacFarland retires from active duty following 33 years of service, the last four of which he served as Director of Coast Survey.

Captain Parsons has served as an officer in the NOAA Commissioned Corps since May 1975 and has more than 28 years of operational and man-

agerial experience with a variety of programs throughout NOAA. He has served aboard six NOAA hydrographic survey and research vessels including command tours aboard NOAA Ships CHAPMAN, MT. MITCHELL and RONALD H. BROWN.

Captain Parsons conducted hydrographic survey operations along the Atlantic and Gulf Coasts of the United States, the Caribbean, and in Central America. He has served as the Commanding Officer, NOAA Officer Training Center; Chief of Operations, Atlantic Marine Center; NOAA Liaison to the U.S. Naval Oceanography Command; and Acting Chief of NOAA's Hazardous Materials Response Division. He most recently served as Director of the NOAA Commissioned Personnel Center.

Captain Parsons earned a BS degree in Oceanography and Meteorology from the State University of New York Maritime College in 1975 and an MS degree in Public Administration from USM in 1992. ☼



Captain Roger L. Parsons, NOAA, chosen to be Director of NOAA's Office of Coast Survey.

Historical Facts Concerning Privation at Sea

From the Internet

The USS CONSTITUTION (Old Ironsides) as a combat vessel carried 48,600 gallons of fresh water for her crew of 475 officers and men. This was sufficient to last six months of sustained operations at sea. She carried no evaporators.

However, let it be noted that according to her log, "On July 27, 1798, the USS CONSTITUTION sailed from Boston with a full complement of 475 officers and men, 48,600 gallons of fresh water, 7,400 cannon shot, 11,600 pounds of black powder and 79,400 gallons of rum." Her mission: "To destroy and harass English shipping."

Making Jamaica on 6 October, she took on 826 pounds of flour and 68,300 gallons of rum.

Then she headed for the Azores, arriving there on 12 November. She provisioned with 550 pounds of beef and 64,300 gallons of Portuguese wine.

On 18 November, she set sail for England. In the ensuing days she defeated five British men-of-war and captured and scuttled twelve English merchantmen, salvaging only the rum

(what else?) aboard each. By 26 January, her powder and shot were exhausted. Nevertheless, although unarmed she made a night raid up the Firth of Clyde in Scotland. Her landing party captured a whisky distillery and transferred 40,000 gallons of single malt Scotch aboard by dawn. Then she headed home.

The USS CONSTITUTION arrived in Boston on 20 February, 1799 with:

no cannon shot,
no food,
no powder,
no rum,
no wine,
no whisky and
38,600 gallons of stagnant water.

Ah, the life of a Sailor! ☼

Hydro Conferences "Down Under"

by Jerry Mills

While it's likely that most THSOA members will not be able to attend, it may interest readers to know of two hydrographic conference that will take place "Down Under" this fall.

Shallow Survey 2003, the Third International Conference on High Resolution Surveys in Shallow Water, will be held in Sydney, Australia, November 17–20, 2003. This conference will be exclusively devoted to the exploration of new technologies and processing methods for mapping and characterizing the seabed in shallow water areas.

If you are interested in attending, you should to make hotel arrangements as soon as possible as the dates of the conference coincide with the finals of the Rugby World Cup.

For more details visit the conference website: www.dst.defence.gov.au/corporate/conferences/swsurvey/.

HYDRO 2003 will be held the week after Shallow Survey 2003, November 24–26 in Christchurch, New Zealand. The theme of this, the

Fourth Australian Hydrographic Symposium, is "Surveying Extremes — The Southern Frontier." Further information and registration forms can be obtained from the conference website at www.hydrographicsociety.org.nz/conference.htm. ☼

- Humor from the Internet - TEN THINGS THEY DIDN'T TEACH YOU AT ENGINEERING SCHOOL

1. There are at least 10 types of capacitors.
2. Theory tells you how a circuit works, not why it does not work.
3. Not everything works according to the specs in the databook.
4. Anything practical you learn will be obsolete before you use it, except the complex math, which you will never use.
5. Engineering is like having an 8 a.m. class and a late afternoon lab every day for the rest of your life.
6. Overtime pay? What overtime pay?
7. Managers, not engineers, rule the world.
8. Always try to fix the hardware with software.
9. If you like junk food, caffeine and all-nighters, go into software.
10. Dilbert is not a comic strip, it's a documentary. ☼

- Humor from the Internet - COMPUTERS ARE LIKE: Men...

In order to get their attention, you have to turn them on.
They are supposed to help you solve problems, but half the time they are the problem.
They have a lot of data but are still clueless.
As soon as you commit to one, you realize that, if you had waited a little longer you could have had a better model.
They hear what you say, but not what you mean.

Women...

No one but the Creator understands their internal logic.
The native language they use to communicate with other computers is incomprehensible to everyone else.
Even your smallest mistakes are stored in long-term memory for later retrieval.
As soon as you make a commitment to one, you find yourself spending half your paycheck on accessories for it.
You do the same thing for years, and suddenly it's wrong. ☼

The Hydrographic Society of America

MEMBERSHIP APPLICATION

(Qualifications for membership and benefits are explained on the THSOA web site where this application may also be downloaded at www.thsoa.org)

I wish to make application for membership in the Hydrographic Society of America. I agree to abide by the THSOA Articles of Association and to further THSOA's aims and objectives. I declare that the information below is accurate to the best of my knowledge and belief. I agree that the decision of THSOA Executive in regard to this application is final.

.....

Title First Name Initial Last Name

.....

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Phone E-mail Address

.....

If student, name of Institution

.....

Signature

THSOA Annual Dues *(Check Appropriate Box)*

- \$20 INDIVIDUAL**
- \$30 INDIVIDUAL** (Houston and Northwest Chapter members only; includes \$10 chapter dues)
- \$10 RETIRED** (no longer employed in sea surveying profession)
- \$5 STUDENT** (full-time undergraduate)
- \$100 CORPORATE**

[Payment must be in U.S. dollars by international draft, postal money order or by a check drawn on a U.S. bank. U.S. dollars on a Canadian bank are acceptable.]

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