

– THE – SEAHORSE

A Newsletter Published by

THE HYDROGRAPHIC SOCIETY OF AMERICA

Issue 56

P.O. Box 732, Rockville, MD 20848-0732

April 2004

THSOA Elects New Officers

Elections for THSOA were held last fall and 143 ballots were submitted. Karl Kieninger ran unopposed for Treasurer and was elected by proclamation. Chic Ransone and Ray Williams were elected as Trustees.

Captain Sam De Bow, NOAA, resigned as President of THSOA effective January 15, 2004. Sam has been selected by the Administrator of NOAA for the senior NOAA Rear Admiral (Upper Half) position. In order to expedite confirmation by the U.S. Senate, Department of Commerce counsel advised that he recuse himself from any non-Government position in which he holds fiduciary authority. Sam had one year remaining of his two year term.

The Board of Trustees decided to hold a special election for President and to have the new President serve for a full two-year term. This will ensure that the same person is President for the entire planning and execution cycle of our U.S. Hydro Conference. Four eligible nominations were received, with 3 declining or withdrawing. Captain Andy Armstrong, NOAA Corps (retired) will therefore serve as President for the next two years.

Many of you already know Andy from his previous work in THSOA and as Chief of NOAA's Hydrographic Surveys Division. He is cur-

rently co-chairman of the Center for Coastal and Ocean Mapping/Joint Hydrographic Center (C-COM/JHC) at the University of New Hampshire. Andy has been involved in the field of hydrography for 30 years and has served aboard 4 NOAA survey vessels including the NOAA Ship WHITING as the Commanding Officer. He is the incoming Chairman of the FIG-IHO-ICA International Advisory Board on Standards of Competence for Hydrographic Surveyors.

We look forward to Andy's leadership over the next two years and congratulate him and the other elected officers. ☼

President's Column

by Andy Armstrong

I'd like to begin a series of regular newsletter columns by expressing my appreciation to Sam De Bow for his leadership of the Society over the last year and by wishing him great success in his new NOAA position.

I'd also like to express appreciation for the continuing and invaluable contribution of all the officers and board. We have a strong and active Society due in no small measure to the hard work and dedication of our officers and boards, both at the national level and in the chapters.

Finally, and perhaps most import-

antly, any professional organization depends on an engaged and active membership. THSOA has just such a membership.

I feel very privileged to be your new president, and pledge to do my part to help keep THSOA moving forward. In future columns, I'll be reporting on the activities of the board and sharing my thoughts on issues facing THSOA and our profession as a whole. That should allow for a wide range of topics. ☼

Canadian Hydrographic Conference 2004 Coming Soon

by Jerry Mills

The 33rd Canadian Hydrographic Conference (CHC 2004) will take place in Ottawa, Canada, from May 25–27 and will celebrate 100 years of hydrography in Canada.

As always there will be a wide range of topics including Seabed Mapping, Tidal Modeling, International Issues, UNCLOS, High Resolution Hydrography, Electronic Charting, ECDIS & ECS, 3D Displays, Updating, Inter-Modal, Positioning Systems, Global Navigation Systems, Tides, Currents & Water Levels, Overcoming Barriers to Data Sharing, Non-Traditional Uses of Hydro-

graphic Data, Quality Control/ Management, Remote Sensing, Lidar Hydrography.

The conference will be preceded by several technical workshops on Monday, May 24. These include the following:

- (1) Uncertainty management issues in a digital age — a goal of this workshop is to raise awareness of the importance of expressing data uncertainty to the user as value added to hydrographic data.
- (2) CARIS Bathymetric DataBASE and CARIS Hydrographic Production Database (HPD) — an integrated approach of managing information through bathymetric surfaces and hydrographic objects.
- (3) HYPACK MAX will also be presenting their hydrographic survey design software, which will demonstrate the latest data collection, surface modeling and contouring programs.

Immediately preceding the conference and workshops the 34th U.S.-Canadian Hydrographic Commission Coastal Multibeam Training Course will be offered on May 17-22. More information about the course can be found at the UNB website: <http://www.omg.unb.ca/mbc/mbc-top.html>. The biennial Canadian conferences are well known for their superb social programs and this year is no exception with events planned on all four days.

The THSOA Annual General

Meeting will also be held during the conference (tentatively scheduled for Wednesday, May 26 after the last technical session of the day). The date and time will be confirmed later.

Note that THSOA members receive a 10% discount on the conference registration fee.

For more information about all aspects of the conference visit the event's website at <http://www.chc2004.com>. ☼

Non-Thesis M.S. and Certificate Programs Added to Ocean Mapping Educational Opportunities at UNH

by Andy Armstrong

The Center for Coastal and Ocean Mapping/Joint Hydrographic Center at UNH has expanded its advanced educational offerings in hydrography and ocean mapping to include both a non-thesis Masters Degree and a Graduate Certificate in Ocean Mapping.

These new offerings will complement the existing Ocean Mapping Ph.D. and thesis-based M.S. degrees in Earth Science and Ocean Engineering. These new programs will add additional flexibility both for traditional students and for ocean mapping and hydrographic professionals seeking advanced education.

The non-thesis Ocean Mapping degree program allows students who wish to complete a more course-work directed Masters degree the opportunity to do so in a total of three semesters plus one 5-week summer session.

Students in the non-thesis option take 34 credit hours of course work, including a 2-credit-hour directed-research project that includes a written and oral presentation of the research. By proper selection of

electives and completion of required non-credit training, students in this option will fulfill all the requirements of the FIG/IHO/ICA Category A recognized curriculum at UNH.

The Certificate in Ocean Mapping is a non-degree graduate program for those who want specific course work in ocean mapping but who choose not to enter a degree program.

Both a Basic Certificate, which requires completion of 4 core Ocean Mapping courses, and an Advanced Certificate, which includes additional electives, are available.

An Advanced Certificate student could, by suitable selection of electives and non-credit training, also fulfill the Category A curriculum requirements. ☼

THSOA OFFICERS

President Andy Armstrong
 Secretary Jerry Mills
 Treasurer Karl Kieninger
 Trustees Art Kleiner, Chic Ransone,
 Ray Williams, Jeff Lillycrop

☼ ☼ ☼ ☼

Executive Secretary Jack Wallace
 Editor "The Seahorse" Tom Slater
 e-mail to: mail@thsoa.org

— CHAPTERS —

GULF COAST

President Art Kleiner
 Vice President Michael Smith
 Secretary Richard Byrd
 Treasurer Shirley Dorsey
 At Large Gail Smith
 At Large John Iwachiv

HOUSTON

Chairperson Andy Bogle
 Co-Chair Steve Browne
 Secretary Melissa Wood
 Treasurer Phil Roberts
 National Timothy Griffin
 At Large—
 Fund Raising Wendy Zielinski
 Publicity Mike Knight
 Membership/Student
 Liaison Lisa Medeiros

NORTHWEST

President Joanna Hawkins
 Vice President (Seattle) Dennis Hill
 Secretary Bob Glaeser
 Treasurer Mike Cristler

THSOA Tel: (301) 460-4768
 Fax: (240) 209-0795
www.thsoa.org

ANNOUNCEMENTS

by Jack Wallace,
Executive Secretary

Hydro International SourceBook.

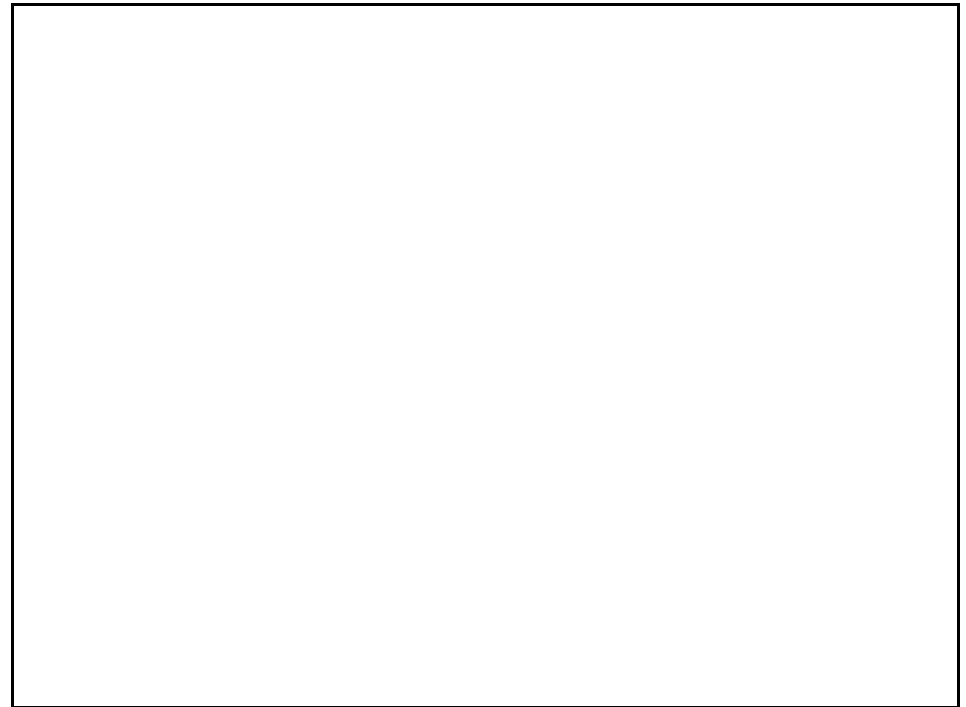
The SourceBook has evolved over the past few years from a printed document, to a CD, and now to a web page. In years past it has been made available in early January. This year it has been delayed due to being moved to the www.

The new web-based version was rolled out at the Oceanology International Conference this past March. The URL is www.ocean-source.com.

At this time, it is not clear how and to what degree it will be restricted to persons not having a relationship to GITC. Your THSOA membership will provide full access. It is likely your Hydro International (HI) subscription number will play a role. The next time you receive a copy of HI make note of the number on the top line of the mailing label. Final details will be posted on www.thosa.org and/or e-mailed to all members when they are received.

New Book

The Coast Mappers, by Taylor Morrison; hardcover, 48 pages, Houghton Mifflin Company, ISBN: 0618254080.



Executive Secretary Jack Wallace staffing THSOA exhibit at Oceans 2003 in San Diego.

In the mid-nineteenth century, little was known of the west coast and its waterways. The ships that sailed those waters did so at a considerable risk, sometimes depending on only a school atlas to navigate and all too often crashing into the rocks. So the U.S. Coast Survey, whose purpose was to map every mile of American shoreline, commissioned George Davidson to chart all of the major points on the coast and all of the waterways in between.

In this beautifully illustrated book, Taylor Morrison chronicles the challenges and adventures Davidson and his team faced and the methods they used to accomplish this monumental, and essential, task.

Although it is written to appeal to 12th graders and lower it makes for good reading nonetheless.

THSOA Exhibits at Several Conferences

In 2003, THSOA exhibited at Hypack 2003 in Phoenix, our own US Hydro 03 in Biloxi, Oceans 2003 in

San Diego, and Caris 2003 in St. Louis. Oceans 2003 gave us a good opportunity to check out San Diego as a venue for our US Hydro 05.

In January 2004 we attended Hypack 2004 in Tampa and plan to be at CHC 2004 in Ottawa in May.

Thanks go out to HYPACK Inc. and Caris for providing exhibit space!

THSOA Members Receive Reduced Registration at Hydro4 in Galway

THSOA members will receive the "Member" discount when registering for Hydro4, November 1 – 4, 2004. Details on our web site.

Corporate Name Changes

There have been several recent corporate name changes:

Coastal Oceanographics (aka CoastalO) is now HYPACK, Inc.;

Kongsberg-Simrad is now Kongsberg Maritime;

Klein Associates, Inc. has been acquired by L-3 Communications and is now L-3 Klein Associates, Inc. ✪

CHAPTER NEWS

Houston Chapter, 2003-2004 Update

by Tim Griffin

The Houston Chapter continued its successful program in the second half of 2003 and the beginning of 2004 with members enjoying an interesting variety of speakers and program events. The breadth of presentation topics, which ranged from inertial navigation technology to hydrogeodetics and from marine archeology in the Gulf of Mexico to mapping in Syria, helps explain why Houston Chapter members are so uncommonly well-informed on so many topics.

At our July meeting, Keith Vickery with Applanix, gave an update on inertial navigation technology, discussing the principles and some of the terminology involved in the inertial business. The presentation outlined the types of integrated solutions currently being offered by various vendors as well as some insight into current developments that should see operational use in the near future.

Keith gave his ideas on the many questions surrounding this complex technology such as, "Are these systems the ultimate survey tool or expensive, unreliable, overly complex, technology bloated random number generators"?

In August, Jon Stigant, with Devon Energy Corporation, gave a presentation on a Middle East mapping project in Syria that was carried out in the days leading up to the Iraq war. Billed as "Mapping While Outrunning the Tanks," this very informative and interesting presentation included a slide show of pictures capturing the local culture and people in Syria.

At the September meeting, Dr. Stacey Lyle, Assistant Professor of Geographic Information Science at the Department of Computing and Mathematical Sciences at Texas A&M University – Corpus Christi, outlined the new Hydrogeodetics Emphasis Degree option being added at the university. He also provided the Chapter members with an update on the efforts to create a Gulf of Mexico Endowed GIS Chair at the Harte Research Institute.

Also in September, the Chapter offered two \$1,000 scholarships for students enrolled in the Computing and Mathematical Sciences Geographic Information Science program at Texas A&M University at Corpus Christi. The scholarships are for students who are enrolled in, or have previously taken, Geographic Information Systems, Geomatics and/or the Hydrographic Surveying courses at TAMUCC. The scholarships were awarded to second year students Samuel Amdako-Atta and Daniel Addi Longmately.

In October, Brett Phaneuf, Assistant Professor of Geographic Information Science at Texas A&M University, gave a talk on GeoHazard Surveying and Marine Archaeology in the Deep Sea.

Jim Thomson, EPT Geodrilling Services Team and Survey and Site Investigation Network Leader with British Petroleum gave the final presentation for 2003 at the November meeting. He provided members with an overview of data integration and

visualization technology used for recent Gulf of Mexico site investigation projects, ranging in scale from regional through exploration, development and production.

In December, the Chapter took a well-earned respite from the rigors of learning to attend the Houston Chapter's 2003 Christmas Party. This event was held for a second successive time at Churrascos Restaurant in Houston and was again an unqualified success. The South American cuisine extended from herbed yuca polenta cake and roasted Oaxaca quesadilla appetizers to roasted achiote citrus salmon with corn pasta in a sherry and lemon butter cream sauce entrees. Almost 100 members and their guests attended this popular event.

From all appearances, 2004 promises to be another great year. The first meeting of 2004 was the Chapter's annual general meeting in January. Elections were held for the Chapter committee and the members are:

Chairperson	Andy Bogle
Co-Chair	Steve Browne
Treasurer	Phil Roberts
Secretary	Melissa Wood
National	Timothy Griffin
At Large	
Fund Raising	Wendy Zielinski
Publicity	Mike Knight
Membership, Student	
Liaison	Lisa Medeiros

The February meeting provided a presentation on the investigation of the PRESTIGE tanker wreck offshore of Spain. It was given by Ian Florence of Kongsberg Maritime. The project was a high-profile, fast-track operation that took place in water depths of nearly 4,000 meters.

Also held in February was the annual Super Bowl Chili Cookoff at Danny's Sports Bar. Danny's is a new venue for this function and was well received by the membership.

Our last meeting, in March, brought a talk on the loop current phenomenon that has been experienced in the Gulf of Mexico and has caused seri

ous problems for drilling and offshore construction operations. The talk was given by Rob Smith with Fugro Geos who is a qualified oceanographer with 16 years experience.

The Houston Chapter of The Hydrographic Society of North America meets on the second Tuesday of the month at the Black Labrador, located at 4100 Montrose in Houston, TX. ✧

CHAPTER NEWS

Gulf Coast Chapter Update

by Art Kleiner

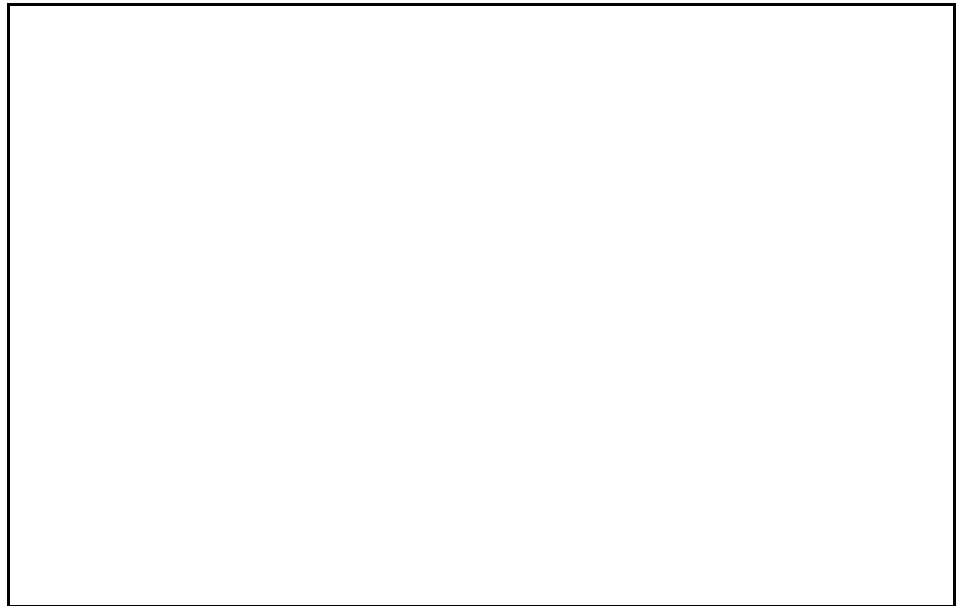
The Joint Professional Societies of Stennis, which includes the Gulf Coast Chapter of the Hydrographic Society, was honored to have Admiral (Select) Timothy McGee, Prospective Commander Naval Meteorology and Oceanography Command, speak on "The State of Hydrography" and its impact on the Navy.

Admiral McGee is a past Commander of the Naval Oceanographic Office. He had recently returned from the Iraq battlefield where he was Chief of Staff to the Director of Operations and Infrastructure for the Coalition Provisional Authority, Iraq.

Admiral McGee provided an enlightening briefing to the group about his real world experiences in Iraq, which characterized the impact of hydrography on modern warfare.

He also described obstacles involved in performing hydrography within a war zone, the contribution the hydrographic data made to the war effort, and its role in helping supply the Iraqi population with needed commodities.

Our hats are off to Admiral McGee for his service to our country and we welcome him back to the beautiful Gulf Coast. ✧



The Manchester Grand Hyatt San Diego, site of US Hydro 2005.

San Diego Selected for U.S. HYDRO 2005

by Jerry Mills

The 2005 U.S. Hydrographic Conference, sponsored by The Hydrographic Society of America, will be held at the Manchester Grand Hyatt in San Diego, California on March 29-31, 2005. As in the past, the conference will include a variety of technical sessions on the latest developments in hydrographic surveying, multibeam and side scan sonar, data management, electronic charting and related topics as well as workshops and training sessions. This will be the first U.S. hydrographic conference on the west coast since 1982 when a much smaller, "workshop-like" event was held in Seattle, Washington.

The Manchester Grand Hyatt San Diego opened in December 1992 and is the tallest and largest waterfront hotel on the west coast. It has two towers, one 40 stories and the other 33 stories, located on San Diego Bay between the San Diego Convention Center and Seaport Village.

The meeting space is ideally suited for U.S. HYDRO 2005 with the exhibit hall, technical session meeting

room and workshop rooms adjacent to each other and all on the same floor. The exhibit hall will be smaller than at previous conferences (capacity 35-40 booths) so early exhibitor registration will have added importance.

More info at the hotel web site: <http://manchestergrand.hyatt.com>.

The conference organizing committee has been formed but we will be looking for additional volunteers as the conference date draws nearer.

More information on the conference will appear on the THSOA website (www.thsoa.org). We look forward to seeing you at U.S. HYDRO 2005! ✧

32nd Shallow Water Multibeam Sonar Course in Seattle Is a Success

by E. J. Van Den Ameele

The 32nd Coastal Multibeam Training Course was held in Seattle this past December 1-6. Sponsored by The Hydrographic Society of America and hosted by NOAA's Office of Coast Survey, the course is an intensive 6-day class taught by instructors from the University of New Brunswick Ocean Mapping Group (Dr. John E. Hughes Clark and Dr. David Wells) and the University of New Hampshire's Joint Hydrographic Center/Center for Coastal and Ocean Mapping (Dr. Larry Mayer and Dr. Christian de Moustier).

The course was held at NOAA's Western Regional Center in Seattle, Washington, and drew students from across the United States and from overseas.

Along with traditional hydrographers, the class consisted of students from a wide variety of disciplines utilizing multibeam, including fisheries biologists, marine sanctuaries managers, and electronic support technicians.

The majority of students were NOAA employees, with the remain-



Students of the 32nd Shallow Water Multibeam Class mingle with instructors and fellow students during a class dinner held at the Seattle Aquarium.

der representing other private industries and other federal agencies.

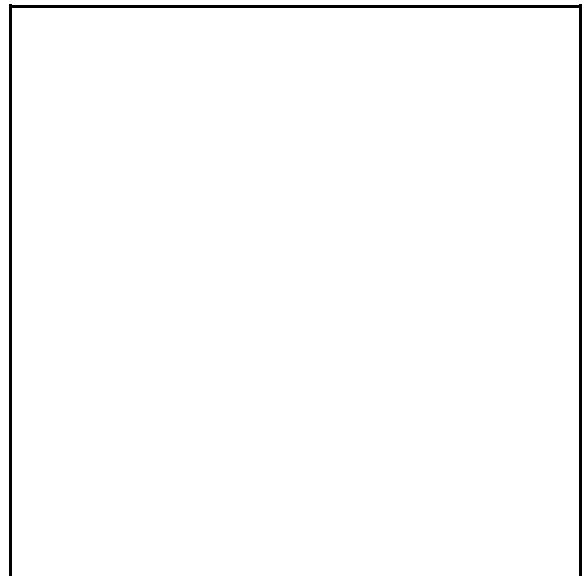
The curriculum is detailed and focuses on acoustic theory, oceanographic and geologic concepts, positioning and ancillary sensors, data processing and quality control, and future technology.

Although theoretical in nature and not a "hands-on" class, one afternoon was spent on the water as an opportunity for students to view the practical applications of multibeam sonar and as an opportunity for participating multibeam manufacturers to demonstrate the capabilities of their systems.

Multibeam, side-scan, and interferometric sonar, and data acquisition and processing system demonstrations were provided by Reson, Kongsberg-Simrad, Benthos, GeoAcoustics, Seafloor Systems, and Triton-Elics International. Students were able

to view the sonars aboard four vessels which operated out of NOAA's facility on Lake Washington.

The class was not all work and no play, however, and the social schedule for the 6 days was just as full as the lecture schedule. This provided students an opportunity to talk shop after hours with fellow students, class in-



Vessels demonstrating sonar systems at the 32nd Shallow Water Multibeam Class.

structors, and multibeam system manufacturers.

On Monday, December 1, an ice-breaker was sponsored by The Hydrographic Society of America, followed by a reception on Tuesday sponsored by Triton Elics International and Benthos.

On Wednesday evening, a class dinner was held at the Seattle Aquarium, with the multibeam class having full run of the house. Apart from an excellent menu, the evening was capped by an exclusive feeding of the marine mammals housed at the aquarium.

On Friday evening, Fugro Seafloor Systems hosted a reception at their facilities at Pier 69 along the Seattle waterfront, including a demonstration of their moonpool, designed for sonar testing built right into their office.

Many thanks go out to the sponsors of the social events which helped make the event a success.

This multibeam class is held three to four times per year at locations around the globe. For more information about upcoming classes, visit <http://www.omg.unb.ca/mbc/mbc-top.html>. ☼

NOAA Contracting Update

by David Scharff

NOAA has five new contracts in place for the FY2004 field season:

1. **C&C Technologies, Inc.** will be conducting survey operations in the safety fairways along the Texas Coast.

2. **SAIC** will be conducting survey operations in the Mid-Atlantic Corridor off the coast of New Jersey and in the North Atlantic for the Law of the Sea project in cooperation with the University of New Hampshire.

3. **Terra Surveys LLC** is expected to begin work in Cook Inlet, Alaska.

4. **Fugro Pelagos** (formally Thales) will begin work in the Shumagin Islands, Alaska.

5. **Tenix LADS**, will begin acquiring bathymetric LIDAR data off the Southwest Alaska Peninsula.

Congress passed the FY2004 budget in February, giving NOAA about \$21,075,000 with which to conduct contract hydrographic survey operations NOAA also received \$2,474,000 for the vessel time charter, \$4,182,000 for Law of the Sea and boundary determination.

The Time Charter contract award is currently on hold, pending a ruling by GAO on two protests that were filed. Deadline for the last ruling is mid-June. ☼

Southern Miss Hydrographic Science Students at Stennis Space Center Provide Vital Link to Maritime History Project

by David Dodd

A group of scientists, historians and divers recently took a three-hour cruise along the Pearl River in Hancock County and confirmed an important historical discovery made last year by hydrographic science students from The University of Southern Mississippi.

As a field project in the summer of 2002, the Southern Miss hydrographic science class used multi-beam and side-scan sonar equipment to map the underwater landscape of the meandering east Pearl River in the buffer zone of the Stennis Space Center, between the I-10 and Highway 90 bridges. What they found hidden for decades under the murky water turned a dream into reality for the Mississippi Sound Maritime Historical Foundation.

The foundation plans to build a reproduction sailing lugger, or small boat, in the same style and with the same materials, as it would have been constructed over a hundred years ago. The finished vessel will be displayed to help illustrate not only the timber industry of Mississippi, but also the

history of working watercraft in the Mississippi Sound.

David R. André, executive director of the Mississippi Sound Maritime Historical Foundation, said information provided by Southern Miss students proved to be invaluable in locating original-growth wood left abandoned in the river from long-ago logging operations.

“The foundation’s program,” André said, “was assured using the side-scan sonar data obtained by USM’s hydrological program. Divers confirmed sinker logs at the GPS locations marked.”

Data from the students’ field project was reviewed by Hydrographic Science Program Coordinator David Dodd, who then marked several “target” areas on a chart of the river. These targets indicate likely locations for old-growth pine and cypress logs.

On Saturday, November 15, Dodd was part of the group that went out on the Pearl River to see if the stick-like structures glimpsed on side-scan sonar readings really were old-growth logs.

Outfitted with global positioning and computer equipment aboard the boat, Dodd was able to incorporate the students’ data into a unique integrated electronic nautical chart developed at Southern Miss, and literally watch on his laptop computer as their

boat closed in on targets identified in 2002.

“Volunteer divers from the Gulfport Fire Department went into the water at the targets indicated on the chart,” Dodd said. While the first location was identified as a shipwreck (which was marked for future reference), the next several locations investigated by divers proved to be exactly what André was hoping to find.

“There were all kinds of logs down there,” Dodd said. “The divers said they all have axe cuts, meaning that they are original-growth wood.” With confirmed locations of old logs between 12 and 36 inches in diameter, André now has the information he can use to pursue his historic project.

“Having USM equipped with the technology, the willing spirit, and instruments like GPS, side-scan sonar, and eventually multi-beam sonar, is a most valuable resource as our foundation seeks to preserve the heritage of the Mississippi Sound, its lands, and tributaries,” André said.

The Southern Miss Department of Marine Science is strategically located at Stennis Space Center in Hancock County, Miss., home to the world’s largest population of oceanographers and hydrographers. The department offers both master’s and doctoral degrees in marine science

and a master’s degree in hydrographic science. ☼

NOAA Establishes Hydrographic Services Federal Advisory Committee

In January NOAA announced the appointment of 15 members to the Hydrographic Services Review Panel (HSRP). The panel will function in accordance with the Federal Advisory Committee Act (FACA) and advise Vice Admiral Conrad C. Lautenbacher, U.S. Navy (Ret.), Under Secretary of Commerce for Oceans and Atmosphere and NOAA Administrator on matters related to NOAA’s hydrographic and navigation services.

In October 2003, Secretary of Commerce Don Evans established the Hydrographic Services Review Panel as directed by the Hydrographic Services Improvement Act of 2002, Public Law 107-372. Of the original 15 appointments, five will be for 2 years, 5 for 3 years and 5 for 4 years. Subsequent appointees will serve 4-year terms.

The Hydrographic Services Review Panel is composed of a diverse field of experts in hydrographic surveying, vessel pilotage, port administration, tides and currents, coastal zone management, geodesy, recreational boating, marine transportation, and academia. Captain Roger L. Parsons, Director of the NOAA’s Office of Coast Survey, will serve as the committee’s designated federal official. One of co-directors of the NOAA/University of New Hampshire Joint Hydrographic Center, and directors of NOAA’s National Geodetic Survey, (NGS) and NOAA’s Center for Operational Oceanographic Products and Services (CO-OPS) will serve as nonvoting members.

The Panel’s duties will include providing advice and recommendations to the NOAA Administrator on hydro-

graphic surveying; nautical charting, water level and current measurements, geodetic measurements; shoreline mapping, and technologies relating to operations, research and development, and dissemination of data. The Panel will assist in addressing NOAA’s strategic plan to improve the nation’s marine transportation system and NOAA’s plans to support commerce with world-class products and services that will help ensure safe, efficient and environmentally sound marine transportation.

The first meeting will take place in Silver Spring, Maryland on April 14, 2004. It is anticipated that there will be approximately 3 to 5 meetings per year and all meetings will be open to the public. Specific meeting information will be available in the Federal Register and from the HSRP website at: <http://nauticalcharts.noaa.gov/ocs/hsrp/hsrp.htm>. For additional information contact Gretchen Imahori via e-mail at Gretchen.Imahori@noaa.gov. ☼

2003 THSOA Annual General Meeting Report

by Jerry Mills

The 2003 Annual General Meeting (AGM) of The Hydrographic Society of America (THSOA) was held on Wednesday, March 25, 2003 at the Beau Rivage Resort and Casino in Biloxi, Mississippi. There were 30 members in attendance.

I. Call to Order

The meeting was called to order by Mr. Jerry Mills, Secretary of THSOA at 5:30 PM.

II. Approval of the Minutes from the 2001/2002 AGM

Copies of the Minutes from the

2001/2002 AGM were distributed to the membership for their review. After no response to a call for questions, a motion was made to accept the Minutes of the 2001/2002 AGM and seconded. The motion was unanimously approved via a voice vote.

III. Treasurer's Report

The Treasurer's Report was distributed to the membership at the meeting and presented by Mr. Karl Kieninger. Although final figures for 2002 were not available, the estimated ending net worth of THSOA was slightly over \$87,000 which represents a decrease of slightly more than \$4,500 from 2001. After review of the report, a motion was made and seconded to accept the Treasurer's Report and approved unanimously via a voice vote.

IV. Old Business — Past Year's Activities

A. International Federation of Hydrographic Societies. There was continued discussion from the 2001/2002 AGM about international collaboration between national hydrographic societies. There have been some efforts to reorganize the various branches of The Hydrographic Society into a proposed International Federation of Hydrographic Societies (IFHS). However, nothing has been finalized. Commission 4 (Hydrography) of the International Federation of Surveyors (FIG) is another possible umbrella organization for international hydrographic societies. This issue remains open for further discussion.

B. The issue of liability insurance to cover hydrographic surveyors on their jobs had been discussed at the previous two AGM's. An article was written by Mr. Ron D'Allessandro and published in the September 2002 issue of the *Seahorse* with a request for comment from THSOA members.

The lack of even one response was taken as a lack of interest by the general membership and it was decided that THSOA would no longer pursue this as a potential benefit.

V. Election of Officers

Elections were held in November 2002 for President, Secretary and two Trustee positions. For the first time in a few years, there were multiple candidates for two of the positions. After the votes were counted, Captain Sam De Bow was elected to the position of President and Art Kleiner was elected as one of the Trustees. Jerry Mills and Jeff Lillycrop were re-elected to their positions as Secretary and Trustee, respectively.

Current officers of THSOA are as follows:

President	. Sam De Bow	. . .	thru 2004
Treasurer	. Karl Kieninger	. . .	thru 2003
Secretary	. Jerry Mills	thru 2004
Trustee	. . . Jeff Lillycrop	. . .	thru 2004
Trustee	. . . Ray Williams	. . .	thru 2003
Trustee	. . . Chic Ransone	. . .	thru 2003
Trustee	. . . Art Kleiner	thru 2004

VI. New Business

A. The site of future U.S. Hydrographic Conferences was discussed and it was decided that proposals from the following cities would be sought as candidates for U.S. HYDRO 2005: Baltimore, Maryland, Norfolk, Virginia, Mobile, Alabama, Biloxi, Mississippi, and San Diego, California. It was suggested that given the 200-year anniversary of the founding of the U.S. Coast and Geodetic Survey in 1807, strong consideration should be given to holding U.S. HYDRO 2007 in the mid-Atlantic area.

B. There was discussion about expanding the definition of "student members" of THSOA to include graduate students. This was approved with the stipulation that such students needed to meet the requirements for "full time student" status and not be fully employed.

C. The newly instituted Student Outreach program which was organized by Jana DaSilva was discussed. There was overwhelming support for the program and a desire to expand it to a larger number of students in 2005.

D. The membership was informed of a new benefit for THSOA members. The highly acclaimed International Hydrographic Review is now available at a discount of 50%! This publication of peer-reviewed articles is sponsored by the International Hydrographic Organization and is published three times a year. It has been reformatted in recent years into full color.

VII. Motion to Adjourn

There being no other business to discuss, a motion was made to adjourn and seconded. The motion was approved unanimously via voice vote and the 2003 AGM was concluded at approximately 6:10 p.m. ☼

- Humor from the Internet -

LIVING IN HELL

An engineer dies and reports to hell. Pretty soon, the engineer gets dissatisfied with the level of comfort in hell, and starts designing and building improvements. After a while, they've got air conditioning and flush toilets and escalators, and the engineer is a pretty popular guy.

One day God calls Satan up on the telephone and says with a sneer, "So, how's it going down there in hell?"

Satan replies, "Hey things are going great. We've got air conditioning and flush toilets and escalators, and there's no telling what this engineer is going to come up with next."

God responds, "What? You've got an engineer? That's a mistake — he should never have gone there, send him up here."

Satan says, "No way. I like having an engineer on the staff, and I'm keeping him."

God responds, "Send him back up here or I'll sue."

Satan laughs uproariously and answers, "Yeah, right. And just where are you going to get a lawyer?" ☼

FIELD TIPS, QUALITY CONTROL**Integration of
Topographic and
Hydrographic Surveys**

by Mike Williams

As a Survey Team Leader for the U.S. Army Corps of Engineers — Norfolk District, I commonly survey dredge placement areas, beaches, and other shallow water federal projects which involve both hydrographic and topographic surveys.

For the hydrographic work, I have a single-beam depth recorder, DGPS system, and use HYPACK software on a 22' SeaArk that drafts about 1.2' (fully loaded). For topographic work I use either a SOKKIA Set 2B Total station or a Trimble 5700 RTK unit.

Often our survey work requires the integration of hydrographic and topographic data. There are a number of factors that must be considered when making the overlap from two different survey types in order for data to be consistent and accurate. From my thirteen years of experience I have learned and developed several real-time quality control techniques to quickly appraise the information so that we can overcome the variables introduced by mixing these survey types.

Data Acquisition: Being located on the Mid-Atlantic coast of the

United States, our tidal range varies from 0.9' to 5.0'. By taking advantage of high and low tides we can facilitate the process of integrating surveys by scheduling survey times and styles based on tide.

When a survey requires data integration there are several methods we use to ensure data agreement and overlap. When performing the hydrographic survey first, we will get a target position (X, Y, Z) at the end of each hydrographic section when the boat has reached its sounding limit. This provides us points to meet with our topographic work. These targets can be input into our data collector to make certain the data is in agreement and assures coverage overlap.

When performing the topographic work first, we will record the last point acquired on each section and will bring these points into HYPACK as targets. If there is enough time between surveys, we will download the entire topographic data and generate a file format compatible with our HYPACK software (such as .XYZ or .DXF). Once this format is created it can be imported into our hydrographic surveying software and viewed real-time, guaranteeing conformity and overlap.

Data Analysis: When combining the data from two different sources, overlap data becomes a key quality assurance check. The comparison of vertical data in overlap areas is something that needs to be readily available and carefully monitored. If vertical and/or horizontal information does not match well, quality control procedures for both surveys would be evaluated. Differences can quickly indicate the possibility of such errors as: poor equipment calibration, improper tidal modeling, vertical datum disagreement, and blunders.

NOTE: Because the vertical error budget for the acoustic hydrographic work is larger than the topographic

methods, the topographical data is usually more accurate. This unfortunately does not preclude the introduction of blunders such as incorrect instrument height, etc.

Conclusion: There are many different ways to perform this integration of data. These simple procedures outlined above allow for the quick on-site evaluation of the harmony of the data. Routine adherence of quality control and quality assurance procedures is a must for verifying the accuracy of all work we perform. ☼

— Humor from the Internet —**AS I'VE MATURED**

I've learned that no matter how much I care, some people are just jackasses
 I've learned that whatever hits the fan will not be evenly distributed.
 I've learned that you shouldn't compare yourself to others — they are more screwed up than you think.
 I've learned that depression is merely anger without enthusiasm.
 I've learned that it is not what you wear, it is how you take it off.
 I've learned to not sweat the petty things, and not pet the sweaty things.
 I've learned that ex's are like fungus, they keep coming back.
 I've learned that age is a very high price to pay for maturity.
 I've learned that I don't suffer from insanity, I enjoy it.
 I've learned that we are responsible for what we do, unless we are celebrities.
 I've learned that artificial intelligence is no match for natural stupidity.
 I've learned that there is a fine line between genius and insanity.
 I've learned that the people you care most about in life are taken from you too soon, all the less important ones just never go away, and the real pains in the ass are permanent. Pass this along to 5 friends . . . trust me, they'll appreciate it.
 Who knows, maybe something good will happen. If not . . . tough.
 As always . . . keep grinning . . . it makes people wonder what you are up to.
 A positive attitude may not solve all your problems, but it will annoy enough people to make it worth the effort.

—Herm Albright ☼

NOAA Office of Coast Survey Autonomous Underwater Vehicle Testing

by LTJG Ben Evans, NOAA

NOAA Office of Coast Survey has begun a test and evaluation program to assess the application of small, lightweight Autonomous Underwater Vehicles (AUVs) to hydrographic surveying in shallow water.

While large AUVs have successfully conducted high-resolution surveys in the offshore zone, the complexity, size, and support requirements of these vehicles limits their utility in shallow water. Smaller vehicles have performed mine clearance mapping and other missions in the near-shore area, but there has been no need for these surveys to meet International Hydrographic Organization (IHO) S-44 standards.

NOAA Office of Coast Survey believes that the next step will be to refine small AUVs for use in coastal hydrographic surveys which meet the requirements of nautical charting. These platforms could acquire both sonar and ancillary survey data, with the goals of a greater degree of autonomy than is currently possible in the offshore zone and higher accuracy than has thus far been demonstrated in shallow water.

When integrated into NOAA's

existing suite of hydrographic platforms, these vehicles could automate operations in the relatively simple portions of a survey area, where a traditional vessel would typically run long, straight survey lines over flat, mostly featureless seabed.

Using AUVs to survey these areas would free human hydrographers to concentrate on more complex regions such as the near-shore zone and areas with high bathymetric relief. Also, autonomous sound velocity profiling could reduce the time currently lost to casts from surface vessels, and improve the accuracy of sound velocity models used to correct multi-beam echosounder data.

NOAA believes that this "force multiplier" model could result in significant gains in survey efficiency, and therefore Hydrographic Offices must actively encourage development of AUV technology which meets their requirements.

To begin this process, OCS collaborated with NOAA Marine and Aviation Operations to develop requirements and solicit proposals for a shallow-water hydrographic survey AUV during the summer of 2003. The result of this competitive selection was a contract for a modified REMUS vehicle awarded to Hydroid, Inc. in September 2003, with delivery scheduled for February 2004.

The NOAA REMUS will be equipped with a side-scan sonar, high accuracy CTD, acoustic Doppler current profiler, inertial and acoustic navigation systems, and remote tracking system.

OCS has planned a busy field season for testing the vehicle from the S/V BAY HYDROGRAPHER and other vessels, in cooperation with other NOAA offices and federal agencies. These tests will assess NOAA's ability to operate this class of vehicle safely and reliably from its existing

survey vessels, and the vehicle's capability to acquire accurate, high-resolution sound velocity corrections and depth, side-scan sonar, and horizontal position data which meets IHO standards. The results of these operations will guide the development of NOAA's requirements for future hydrographic survey AUVs. ☼

~ Humor from the Internet ~

HOW TO SIMULATE

NAVY SHIPBOARD LIFE AT HOME:

- Sleep on the shelf in your closet.
- Every time there's a thunderstorm, go sit in a wobbly rocking chair and rock as hard as you can until you vomit.
- Put lube oil in your humidifier instead of water and set it to "high."
- Leave lawnmower running in your living room 24 hours a day for proper background noise level.
- Have the paperboy give you a haircut.
- Use 18 scoops of coffee per pot and allow to sit for 5 or 6 hours before serving.
- Have a fluorescent lamp installed on the bottom of your coffee table and lie under it to read books.
- Invite over 100 people to come and visit for a couple of months.
- Raise the thresholds and lower the top sills on your front and back doors so that you either trip over the threshold or hit your head on the sill every time you pass through one of them.

— 0 —

~ Humor from the Internet ~

NEW SYSTEM ADMIN WORDS

- BLAMESTORMING: Sitting around in a group, discussing why a server went down, and who was responsible.
- SEAGULL MANAGER: A manager who flies in, makes a lot of noise, craps on everything, and then leaves.
- MOUSE POTATO: The on-line, wired generation's answer to the couch potato.
- STRESS PUPPY: An admin who seems to thrive on being stressed out, whiney, and complains about stupid users all day.
- SWIPEOUT: An access card that has been rendered useless because the magnetic strip is worn away from extensive use.
- OSTEOPOROSIS: A degenerate disease. (This one got extra credit). ☼

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 apply for membership in the Hydrographic Society of America (THSOA). I agree to further THSOA's mission of promoting education in Hydrography.

Title First Name Initial Last Name

Address

Address

City State ZIP Country

Employer Check here if "Address" (above) is Employer.

Phone E-mail Address

If student, name of Institution

THSOA Annual Dues *(Check Appropriate Box)*

- \$20 INDIVIDUAL**
- \$30 INDIVIDUAL** (Houston Chapter members only; includes \$10 chapter dues)
- \$10 RETIRED** (no longer employed in sea surveying profession)
- \$5 STUDENT** (see web-site for qualifications)
- \$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.]

Credit card users please complete the following:

- Master Card
- Visa
- American Express

Name on credit card:

Card No.: Exp.: .../...

Billing Address:

Mail to: **The Hydrographic Society of America**
P.O. Box 732
Rockville, MD 20848-0732

The Hydrographic Society of America
P.O. Box 732
Rockville, MD 20848-0732

ADDRESS SERVICE REQUESTED

Non-Profit Org.
U.S. Postage
PAID
Rockville, MD
Permit No. 5103