

# - THE - SEAHORSE

*A Newsletter Published by*

## THE HYDROGRAPHIC SOCIETY OF AMERICA

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March 2002

### FIG 2002 Coming to Washington, DC

As the THSOA President mentions in this month's "Letter from the President" column, there are certainly a lot of events on tap for the hydrographic surveying community.

One that seems to be flying under everyone's radar is the International Federation of Surveyors (FIG) XXII International Congress which will be held in Washington, DC, at the Marriott Wardman Park Hotel on April 19-26, 2002. It is being held concurrently with meetings of the American Congress on Surveying and Mapping (ACSM) and the American Society for Photogrammetry and Remote Sensing (ASPRS). This event is held every four years and is expected to have official delegates and representatives from nearly 100 countries.

FIG is comprised of nine commissions, one of which is devoted to hydrography — Commission IV.

There will be a total of six technical sessions (17 papers) devoted to hydrography during the conference. The topics are wide-ranging and of interest to a broad audience including modern technology (multibeam sonar, lidar, AUV's), data management, vertical datums, ECDIS and Standards and Education in Hydrography. Commission IV will hold its meeting on Monday, April 22 and is open to all conference attendees.

Other related activities are an all-

day workshop on hydrographic surveying in the U.S. and a tour of NOAA's National Geodetic Survey and Office of Coast Survey with a field trip to the Maritime Institute of Technology and Graduate Studies (MITAGS). This field trip will include a visit to a full mission bridge simulator equipped with an ECDIS.

There will also be numerous other papers/sessions/workshops on subjects of interest to hydrographers including GPS, GIS, photogrammetry and general surveying.

The FIG Congress is usually the highlight event of the year for international hydrography. However, this year FIG's four-year schedule coincides with the International Hydro-

graphic Organization's (IHO) five-year cycle (it happens every 20 years!). Also, IHO's conference takes place the week just before the FIG congress. It will be interesting to see if the proximity of the events adversely affects attendance at either, or both!

Nevertheless, if you are interested in what's taking place in international hydrography without the expense of travelling abroad, the FIG Congress is the place to be in April.

More information can be obtained on the FIG 2002 website ([www.fig2002.com](http://www.fig2002.com)) or by contacting the U.S. delegate to Commission IV, Jerry Mills by e-mail at [Jerry.Mills@noaa.gov](mailto:Jerry.Mills@noaa.gov) or by telephone at 301-713-2780 Ext. 116. ☼

#### **FROM THE PRESIDENT**

### **A Busy Time for the Hydrographic Community**

**by Ken Barbor, President**

The hydrographic community has much on its plate these days.

Next month the XVI International Hydrographic Conference convenes in Monaco. The one-week format has tightened the schedule and eliminated the technical sessions of past conferences but with all three positions on the directing committee open for election, most of the world's national hydrographers should be in attendance.

In May we will gather in Toronto

to participate in the Canadian Hydrographic Conference 2002. The technical program will be first-rate and our friends to the north are seldom bettered in the social arena. I hope to see many of you there the last week of May.

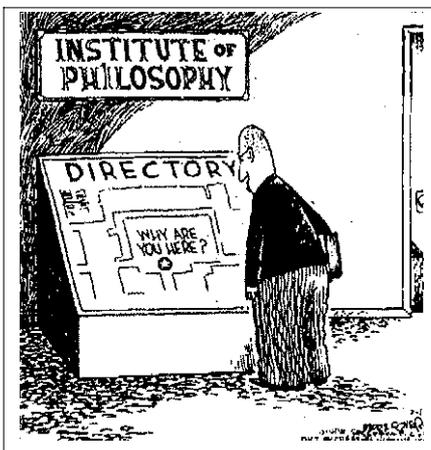
THSOA has finalized its plans for US HYDRO 2003. Our Conference will be held at the Beau Rivage in Biloxi, Mississippi from 24-27 March 2003. The venue provides an excellent hotel and conference facility that is less than five years old, an on-site

marina for vendors to stage their on-the-water demonstrations, and an opportunity to invest in the economy of Mississippi at the premier casino and resort of the Gulf Coast. It is not too early to begin writing your papers and marking your calendar for this professionally and socially rewarding conference full of warm southern hospitality and spicy cajun cooking.

The importance of hydrography in coastal zone management, economic development and safety of navigation continues to receive national recognition. The National Academy of Sciences has commissioned a study of the national needs for coastal mapping and charting. The FY02 NOAA appropriations specifically highlight the need for additional survey efforts by both contractors and government, enhanced research in hydrographic data management and visualization and an improved understanding of the role of hydrography in Law of The Sea matters. Additionally, the Defense appropriations specifically noted the need for greater efforts in hydrography,

Given this increased prominence in our science in current affairs, THSOA has committed to a greater recruiting presence at professional conferences. To market our society, we have provided Jack Wallace with a refurbished display booth and charged him to seek out opportunities to inform the corn

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munity about our education efforts and benefits of THSOA membership. Jack has recently retired from NOAA after 36 years of service to his country as a uniformed NOAA Corps Officer and government service civilian. Jack was instrumental in establishing THSOA and remains an active member of THSOA's executive board. Look for him at a conference near you.

Also in an effort to attract attention and get the word out, the THSOA website continues to undergo improvements. The links and reference sections provide valuable information ranging from the recently released USACE Hydrographic Manual to hydrographic documents of historical significance. Check it out! ⚙️

## Pat, This One's For You!

**Jack L. Wallace, Executive Secretary**

The Hydrographic Society of America is forever indebted to Past President Pat Sanders for his leadership role in bringing back the U.S. Hydro Conferences.

After every conference Pat writes in his Coastal Oceanographics newsletter: 'I look forward to see how THSOA will invest the money from the 1999 and 2001 conferences to benefit the entire membership.'

So, Pat let me bring you up to date on what we have done recently.

In early March the THSOA Board approved, for a second year in a row, a grant of \$5,000 to the American Congress on Surveying and Mapping (ACSM), in support of the Hydrographic Certification Program. Without this funding it is doubtful that the program would be able to put on the certification workshops they sponsor every year.

Shortly after the conclusion of U.S. Hydro 2001 we received an inquiry from a member of the Peruvian Hydrographic Office, "May I have your permission to translate the

technical papers into Spanish?" Some of us in THSOA like to think of the "A" in THSOA as standing for the Americas and we don't do enough to promote that feeling. After an exchange of e-mails we wired \$3,400 to hire a professional to assist with the translation. The translation has now been completed, and as soon as we can compose an introductory web page and index in Spanish, the papers will be made available on our web site.

The hydrographic community is indebted to Lieutenant Commander Luis Pacheco.

In a recent e-mail Luis wrote, "I am a specialist in Hydrography and recently took a course in Harbour and Coastal Survey addressed to Hy-

## THSOA OFFICERS

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## — CHAPTERS —

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drographers in IMA (Trieste — Italy). Last year (2001) I was the head of the Hydrographic Academy of my Navy and the head of the Interinstitutional Relationship office of the Hydrographic Office of the Navy. This year, since January the Navy assigned me as Captain of a Hydrographic Ship CARRASCO. You can find information about this ship on our web side [www.dhn.mil.pe](http://www.dhn.mil.pe) (look inside the window 'unidades hidrograficas'). I am very happy and proud of this nomination. In 1994 I went to The Netherlands with a team to take delivery of the CARRASCO. I am member of the first crew and now the commander. Last year I also participated in the installation of our first multibeam system with another officer. We have already made some surveys with this systems with good results. The notes of the conference I helped translate were very useful for this process with our multibeam."

Perhaps you have noticed new additions to the References page on our web site in the form of historical hydrographic manuals. These manuals were a byproduct of a project I worked on at NOAA involving Metadata. I spent many hours in the NOAA Library researching the historical archives looking for information on the Accuracy and Lineage (how the data was processed) as it pertained to the complete collection of surveys dating back to 1846. I came across some interesting stuff that otherwise would remain in the archives.

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Since none of these manuals are protected by copyright in the United States I thought it would be a good idea to get them scanned into PDF (searchable) so that anyone, anywhere in the world, could have access to them.

NOAA's Office of Coast Survey let me use an office copier in the evenings and a high speed scanner. The THSOA board authorized \$4,000 which covered the cost of professional binding services to take some of the manuals apart (and put them back together).

The scanned pages (more than 1800) were loaded onto our FTP server and downloaded by a contractor in India where they underwent OCR and conversion to PDF Normal. The typeface was changed slightly to facilitate smaller file sizes. Because OCR "suspects" were manually corrected in the process, and I have not proof read all the pages, if anyone finds an error please let us know.

Rather surprising, we have received about a dozen very favorable comments from outside North America.

In addition to scanning the manuals I have scanned a chapter in Bowditch dealing with accuracy that does not appear in the current version and the most recent 20 issues of Seahorse all of which will also be made available on our web site.

Finally, Pat, I would like to mention our Seahorse bulk mail preparation service. For the past eight years we have been using the Work Orientation Center (WOC) to breakdown the mailing by zip code and deliver it to the Postal Service Bulk Mail Service.

WOC serves a developmentally disabled population as part of the Montgomery County (Maryland) public school system. The mission of Rock Terrace School is to help the young adults it serves to develop the skills, attitudes, and behaviors they

need to become as independent as possible. WOC uses business contracts to teach the many necessary work behaviors, attitudes, and problem-solving skills. It teaches teamwork and quality control while imposing deadlines and structure.

Because we have a relatively small mailing by bulk mail standards using a commercial service would cost many times more. So every year I use my "discretionary account" to help out in some small way usually in away the county bureaucracy is unable to or slow to respond. Last winter we purchased two wheel chairs for use during fire drills, the year before a portable radio CD player, before that several cases of binders.

Future plans? There has been a lot of discussion over the years about scholarships. I am more inclined to offer a grant to someone who would be interested in putting together a multimedia PowerPoint presentation that describes what hydrography is — targeted for an elementary school audience. Many of you Corporate Members have some pretty slick graphics and the like on your web sites — we need someone to pull it all together. ⚙

### ANNOUNCEMENT

## Plans Set for U.S. HYDRO 2003

The Hydrographic Society of America has finalized arrangements for the next U.S. Hydrographic Conference which will be held in Biloxi, Mississippi, March 24-27, 2003.

All events will be held at the Beau Rivage Resort and Casino which is on the Gulf of Mexico, just 90 miles east of New Orleans. The Beau Rivage is a first class hotel and under the same organization as several famous hotels in Las Vegas — MGM Grand, Bellagio, New York New York and Treasure Island. →

The meeting space is ideally suited for U.S. HYDRO 2003 with an exhibit hall capacity for 70-90 companies, a technical-session meeting room for 350 and additional rooms for workshops all adjacent to each other on the same floor!

There is an outdoor special events pavilion overlooking the Gulf for our casual dining event on Wednesday evening and a 31-slip marina adjacent to the hotel.

We will be forming committees for the conference in the next few weeks, so if you're interested contact one of the Board of Trustees or the Conference Chairman, Ken Barbor at: [barbor@ssc.usm.edu](mailto:barbor@ssc.usm.edu).

More information on the conference will appear on the THSOA website ([www.thsoa.org](http://www.thsoa.org)).

For more information on the Beau Rivage Resort and Casino, visit the Beau Rivage website at <http://www.beaurivageresort.com/>.

We look forward to seeing you at U.S. HYDRO 2003! ⚙

#### IN MEMORIAM

### Dale E. Westbrook

It was with great sadness that we learned of the passing of one of the original members of THSOA, Dale Westbrook, on Sunday, May 27, 2001

Dale was born in Connecticut on

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May 20, 1931, and, after earning his B.S. degree in civil engineering, was commissioned into the Coast and Geodetic Survey (C&GS) in 1953.

After a few sea assignments and wanting to spend more time with his family, he resigned in 1963 and accepted a civil service position with C&GS as a cartographer, and eventually with the Hydrographic Surveys Branch as its Deputy Chief.

Dale was not very active directly in THSOA in his early years, but as a supervisor he strongly "encouraged" his branch personnel to join and most followed his good "advice."

At some point he decided that there was a need for a U.S.-based anonymous column in The Seahorse, to offer the American perspective on hydrography. As result, *On the Next*, by "Goldbrick" was created and persisted over a decade often serving as a counterpoint to The Hydrographic Journal's *Round of Angles* by "White-wash." Dale was never shy when offering his opinions under his Goldbrick pen name, but never malicious either.

After his retirement in 1989 from NOAA, the successor of C&GS, Dale became the full-time editor of the THSOA newsletter, The Seahorse, and continued in this capacity until 1999.

His desire to publish a first-class newsletter was apparent from the beginning and required a great deal of persistence in acquiring articles from various authors by the "deadline". He had great organizational skills and an eye for "laying out" the newsletter, way before desktop publishing software became so easy to use. His sense of humor and professional pride in hydrographic surveying will be sorely missed.

*We apologize for the delay in publishing this article which originally was to run in the September 2001 edition of the Seahorse.* — JERRY MILLS) ⚙

#### CHAPTER NEWS

### Houston

Since our last report, the Houston Chapter has continued its long-standing tradition of monthly meetings on the second Tuesday of each month. A meeting is not held in May due to the Offshore Technology Conference and in December the formal meeting is replaced by an "End of Year Party." Last year, we moved to the Black Labrador Pub. Visit our Chapter web page ([www.thsoa.org](http://www.thsoa.org), click on Chapters) where you can view a recent Newsletter complete with map and directions.

The speaker at our October meeting was Bruce Calderbank, President of Hydrographic Survey Consultants International located in Calgary, Alberta, Canada. Bruce's company specializes in offshore survey, navigation and positioning projects worldwide where the focus is serving as the client navigation representative.

Bruce received a postgraduate Diploma in Hydrographic Surveying from Plymouth Polytechnic, England in 1980, and a Bachelor of Surveying Degree from the University of New South Wales, Australia in 1978. In his presentation he reviewed several Canadian maritime court cases involving the chart maker and the offshore surveyor.

In December the venue was the Black Labrador for the "End of 2001 Party" held on Saturday December 15. Organized by Chapter Treasurer, Phil Garrod, it featured a banquet and numerous door prizes contributed by corporate sponsors. The event was deemed a resounding event with over 80 members and guests in attendance.

In January we held our traditional election of officers. Nicola Quin was elected as Chairperson replacing Brian Morr. Thank you Brian for a job well done!

Nicki, as she prefers to be called,

graduated from Southampton University, UK in 1992 with an MsC. in Oceanography after having completed an undergraduate degree in Earth Sciences at Oxford Polytechnic. Three days after graduation she joined Digicon Geophysical and the seismic vessel Polar Search. Nicki transferred to the Houston office in 1996 and became Navigation Manager in 1997. She currently heads the Vessel Technical Support Group.

Newly elected as Vice Chair is Steve Browne. Steve works for Thales GeoSolutions. He is currently the Business Development Manager for Survey and Positioning Services. Steve has been an employee of the Thales (formerly Racal) for 18-years, serving as a Field Engineer, Senior Workshop Engineer, and Technical Manager before assuming his current duties in April 2000.

Rounding out the newly elected management team are Membership Secretary and Student Liaison, Wendy Zielinski of Asstead and THSOA Trustee, Tim Griffin of FugroChance. The two At-Large Officers elected were Andy Bogle of TMS International and John Roscoe-Hudson of C&C Technologies.

The speaker at the January meeting was Jim Cain of Exxon Mobil.

February was a busy month. In

addition to our regular scheduled meeting we gathered for the traditional (24<sup>th</sup>) Annual Geophysical Chili Cook Off. Organized by Houston Chapter member Meredith Rhodes, the group meets on Superbowl Sunday to watch the big game and select the winning chili chef during halftime. This year it was held at Sherlocks Baker Street Pub in Houston. Winners were Melissa Wood of Sonardyne taking the top honor, Mike Knight of TMS taking second place and Mick Harvey of Williamson taking third.

With a record number of cooks, good attendance and even a good football game, we look forward to a bigger and better event in 2003. We would like to thank our local Hydrographic Society members who are always generous in donating prizes.

The speaker for the February meeting was John Roscoe-Hudson. John is a Systems Development Manager in the GPS Service Group of C&C Technologies. John spoke about C&C Technologies new Globally Corrected GPS (GcGPS), C-Nav GPS System.

The Houston Chapter is always looking for speakers. If you or anyone you know would like to give a presentation, please call Steve Brown at 713-784-4482 or Nicola Quin at 832-351-8428 or e-mail [Hydronews@tmsico.com](mailto:Hydronews@tmsico.com). ☼

## CHAPTER NEWS

### Gulf Coast

by Michael Smith, President

A meeting of the Gulf Coast chapter was held at Salvaggio's Restaurant in Slidell, LA at 7 p.m. on January 31, 2002. This was the first in a series of joint meetings with representatives from The Hydrographic Society of America (sponsor), the Marine Technology Society, the American Meteorological Society and Sigma Xi. About 50 members and guests were present.

**Business of Note** — John Iwachiw announced the names of newly elected Officers for the Gulf Coast Chapter:

President, MICHAEL Q. SMITH, Naval Oceanographic Office  
Treasurer, SHIRLEY D. DORSEY, Naval Oceanographic Office  
One Officer at Large, JOHN G. IWACHIW, Naval Oceanographic Office,

Co-chair Rebecca Smith appealed to those present to support OCEANS '02 MTS/IEEE and the conference that will be held on the Gulf Coast in October 2002. She pointed out that the Call for Papers had gone out and stated the deadline for submission of abstracts is March 29.

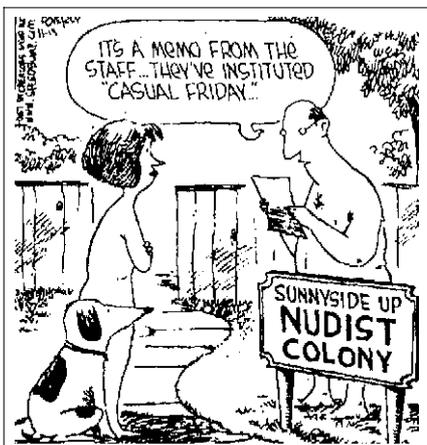
Rear Admiral Kenneth E. Barbor (Ret.), was the featured speaker and provided a comprehensive presentation of The University of Southern Mississippi's master's degree program in Hydrographic Science and its associated Hydrographic Science Research Center.

After 28 years in the U.S. Navy, Ken retired from active naval service in November 2000 as Commander, Naval Meteorology and Oceanography Command and is now the Director of USM's Hydrographic Science Research Center at Stennis Space Center. He is also the President of The Hydrographic Society of America and the current U.S. nominee to the International Hydrographic Organization's Directing Committee. Elections for that post will occur at the 16<sup>th</sup> Annual International Hydrographic Exhibition in Monaco this April.

The Hydrographic Science Research Center was created to develop and broaden ocean charting and navigation technology. It complements the Hydrographic Science master's degree by implementing new research in cutting-edge methods like swath acoustics, global positioning and advanced computer technology.

A collaboration with the U.S. Navy has resulted in a curriculum that was

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approved at the category A level in April 2000 by the International Federation of Surveyors (FIG)/International Hydrographic Organization (IHO) Advisory Board on Standards of Competence for Hydrographic Surveyors.

USM and the Navy created this academic partnership to educate a new generation of hydrographers who can use emerging technology to meet the growing needs of both government agencies and the private sector. This education will benefit from taking place in an environment of advanced research and development at Stennis Space Center. ✨

## Multibeam Sonar Training

by Jerry Mills

The twenty-sixth UNB/UNH (University of New Brunswick/University of New Hampshire) Multibeam Training course was held in Norfolk, Virginia in early December 2001.

The class was the largest ever held with 56 attendees, some coming from as far away as England, Ireland and the Netherlands. Although there were some initial concerns about such a large class, the excellent facilities at the Sheraton Norfolk Waterside Hotel (site of U.S. HYDRO 2001) and outgoing nature of all involved made the offering one of the best ever according

to the instructors. The six-day course covered all aspects of multibeam sonars and were presented by some of the leading multibeam sonar experts in the world: Layer Mayer (UNH), David Wells (UNB), Christian de Moustier (formerly of Scripps now of UNH) and John Hughes-Clarke (UNB).

Having attended the sixth offering of the course in 1996, I am amazed at the constant improvement in the visual effects of the presentations and the effort put forth to keep the material up-to-date.

If you are involved with multibeam sonar to any extent, this course is an absolute must. Those that missed the class in December and would like to attend are very fortunate. The next class will be offered in Burlington, Ontario on May 22-27 just before the Canadian Hydrographic Conference 2002. The course is being sponsored by the Central Region Branch of the Canadian Hydrographic Association (CHA).

For additional information, see the full page flyer elsewhere in the Seahorse or the course website at: <http://biachss.bur.dfo.calcha-mb 2002/>.

Take advantage this year because the next offering in North America probably won't occur again until 2004! ✨

Canadian people.

This year's theme is "Innovation and Excellence: Focusing on Client Requirements and Their Changing Needs." The conference will take place at the Westin Harbor Castle Hotel on the shores of Lake Ontario. There will be three days of technical papers preceded by a full day of technical workshops on Tuesday, May 28. The conference dinner will take place at the nearby Hockey Hall of Fame, which according to our Canadian hosts "is going to be a blast"! See you in Toronto, eh!? ✨

## – Humor from the Internet –

### HANDY ENGINEERING CONVERSION REFERENCE

Ratio of an igloo's circumference to its diameter: Eskimo Pi.

2000 pounds of Chinese soup: Won ton.

1 millionth of a mouthwash: 1 microscope.

Time between slipping on a peel and smacking the pavement: 1 bananosecond.

Weight an evangelist carries with God: 1 billigram.

Time it takes to sail 220 yards at 1 nautical mile per hour: Knot-furlong.

365.25 days of drinking low-calorie beer because it's less filling: 1 lite year.

16.5 feet in the Twilight Zone: 1 Rod Serling, Half of a large intestine: 1 semicolon.

1000 aches: 1 kilohurtz.

Basic unit of laryngitis: 1 hoarsepower.

Shortest distance between two jokes: A straight line (think about it for a moment).

453.6 graham crackers: 1 pound cake.

1 million microphones: 1 megaphone.

1 million bicycles: 2 megacycles.

2000 mockingbirds: two kilomockingbirds (work on it ....).

10 cards: 1 decacards.

1 kilogram of falling figs: 1 Fig Newton.

1000 cubic centimeters of wet socks: 1 literhosen.

1 millionth of a fish: 1 microfiche.

1 trillion pins: 1 terrapin,

10 rations: 1 decoration.

100 rations: 1 C-ration,

2 monograms: 1 diagram.

8 nickels: 2 paradigms.

3 statute miles of intravenous surgical tubing at Yale University Hospital: 1 I.V. League.

100 Senators: Not 1 decision. ✨

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## Canadian Hydrographic Conference Coming Soon

The 2002 Canadian Hydrographic Conference will take place in Toronto, Ontario on May 28-31.

This biennial event alternates with the U.S. Hydrographic Conference and is an excellent opportunity to interact with our fellow hydrographers to the north. Past Canadian Hydrographic Conferences have always been first class affairs with excellent technical papers, great social events and the unmatched hospitality of the

## THSOA and E-PageAds Establish Partnering Agreement

The Hydrographic Society of America (THSOA) is pleased to announce a new partnering agreement between THSOA and E-PageAds of Stafford, Texas.

Under the terms of the agreement E-PageAds will offer a 20% discount to Corporate Members of THSOA who sign up for or renew a 1-year multi-language web page subscription.

E-PageAds in turn will donate \$100 to THSOA to further our primary mission — to Promote Education in Hydrography.

Founded by a former hydrographic surveyor with the UK Royal Naval Hydrographic Service, E-PageAds Inc. has emerged as one of the most focused sites in the industry and offers self-editing web page services where subscribers have 365/24/7 password protected access from anywhere in the world.

Simple, non-HTML editing of the pages allow for short-fuse, non-technical messages to be sent to a select set of clientele and are designed to augment, not replace, existing company web sites. Pages may be viewed in six languages using a single click. A "short and simple" unique URL is also given to simplify broadcasting

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new and important information advising of new products, announcements, demos, and new positions.

E-Page Ads also sends out a FREE weekly newsletter to promote companies actively seeking regular and targeted exposure within the industry. To subscribe email [subscribe@E-PageAds.com](mailto:subscribe@E-PageAds.com).

Companies operating in the Survey, Geophysical and Underwater industry sectors can benefit using E-PageAds' Consigned Equipment portal at <http://www.consigned-equipment.com>. The service has taken off with equipment from all sectors. Visitors can browse the site for used, new or surplus equipment. E-mail: [consign@E-PageAds.com](mailto:consign@E-PageAds.com).

Details and sign up information on the E-PageAds offer can be found at <http://www.e-pageads.com/thsoa>.

We would like to hear from any of our Corporate Members that take advantage of this agreement; not just to keep E-PageAds honest, but to get a sense of its value. ☼

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Take advantage this year because the next offering in North America probably won't occur again until 2004! ☼

## Corps of Engineers' 2002 Surveying and Mapping Conference

The staff of the CADD/GIS Technology Center is pleased to announce the 2002 Geospatial Technologies Symposium and Exposition. Presentations and exhibits will highlight and demonstrate the latest technologies for CADD, GIS, facility management, remote sensing, and survey/mapping.

This year's Symposium will be held at the Henry B. Gonzalez Convention Center on August 20-22, 2002 in San Antonio, Texas. Each Symposium gets bigger and better and this one is already living up to expectations.

For 2002, the Symposium will be held in conjunction with the Air Force's Joint Services Pollution Pre-

vention & Hazardous Waste Management Conference and Exhibition. By co-locating with the Air Force, attendees may attend sessions in both events and enjoy the huge exhibit hall.

For more information please visit the Center's Symposium web site at [http://tsc.wes.army.mil/center\\_info/symposium/symposium.asp](http://tsc.wes.army.mil/center_info/symposium/symposium.asp).

We hope to see you there! ✨

## NOAA Contracting Update

by Brian Greenawalt

The 2002 field season is getting underway. Ocean Surveys, Inc., is preparing for a survey in Pamlico Sound, North Carolina.

SAIC completed a survey project in Delaware Bay and has submitted a proposal for surveys in the approaches to Cape May, New Jersey.

In Alaska, Terra Surveys LLC submitted a proposal for a survey in Kasaan Bay and Thales GeoSolutions (formerly Racal Pelagos) submitted a proposal to survey the waters around the Pribilof Islands using LIDAR bathymetry.

C&C Technologies, Inc., completed the assigned surveys in the Gulf of Mexico.

NOAA is in the process of announcing two new contracting opportunities. The first will be for hydro-

graphic surveying services using LIDAR technology. The second will be for hydrographic surveying services using shallow water multibeam and side scan sonar technologies. Both announcements will soon appear on the Find Business Opportunities web site at <http://www.fedbizopps.gov/>

In the FY2002 appropriations bill, Congress included language urging NOAA to enter into a long-term lease or charter for a survey vessel. NOAA is working with the Military Sealift Command to effect a charter where a private firm would provide a fully outfitted and crewed vessel. The vessel plus its two survey launches will be outfitted with shallow water multi-beam systems. NOAA would place 3 to 4 hydrographers on board.

For additional information about these contracts, contact Brian Greenawalt at (301) 713-2705 x 110 or by e-mail at [brian.greenawalt@noaa.gov](mailto:brian.greenawalt@noaa.gov). ✨

## New Sonar Book

*Sound Reflections*, (272 pp.) by John Fish and H. Arnold Carr, 2001

This is an advanced reference text that discusses the more complex and demanding applications of side-scan sonar. For anyone involved in the acquisition of imaging sonar data at sea or the interpretation of sonar data this new text is a logical text to have.

The book provides an in-depth look at the diverse range of sonar applications and discusses advanced data interpretation. Different sonar design technologies are outlined with examples from a variety of sonar types from low frequency to very high frequency systems. *Sound Reflections* is comprehensive in its presentation and authoritative in providing field-proven principles.

Chapter topics include:

- Developments in Side Scan Sonar Technology

- Bandwidth and Chirp Sonar
  - Imaging Small Structures
  - Imaging Large Structures
  - Image Density in Sonar Data
  - Sonar Phenomenon
  - Aircraft and Aeronautical Debris
  - Imaging Wide Area Formations
- Features: a Glossary of sonar terms and their meanings, color, 422 illustrations, hard binding.*

The text can be viewed at [www.InstituteForMarineAcoustics.org](http://www.InstituteForMarineAcoustics.org). ✨

## Origin of the Fathom

by Jerry Mills

Have you ever wondered about the origin of everyday words? I came across an interesting explanation of a term used to measure depth along the west coast of the U.S. and in Alaska.

During the days of depth measurement by leadline, after reaching the sea floor with the lead, the leadsmen would haul in the line extending their arms repeatedly, fingertip to fingertip, to measure the length. They called this unit of measurement a fathom, from an Anglo-Saxon word for embrace (holding out your arms). From this a fathom became more precisely defined as six feet.

Whatever the origin of the term "foot/feet," it was obviously a more popular measure of length because no one is buried "one fathom under"! ✨

## – Humor from the Internet –

ENGINEERS AND LIGHT BULBS

Q. How many first year engineering students does it take to change a light bulb?  
A. None. That's a second year subject.

Q. How many second year engineering students does it take to change a light bulb?  
A. One, but the rest of the class copies the report.

Q. How many third year engineering students does it take to change a light bulb?  
A. "Will this question be in the final examination?"

Q. How many civil engineers does it take to change a light bulb?  
A. Two. One to do it and one to steady the chandelier.

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# Canadian Hydrographic Association (CHA) Central Branch *is hosting the* 2002 – Coastal Multibeam Sonar Training Course

We are pleased to announce that during the week prior to the *Canadian Hydrographic Conference 2002*, CHA Central Branch will be hosting a Coastal Multibeam Training Course in Burlington, ON. The course will be held May 22 through 27 at the Travelodge Hotel, downtown Burlington. This course, which will be given by Drs. John Hughes Clarke, Larry Mayer, David Wells and Christian deMoustier, continues what has become one of the best sources for multibeam sonar training worldwide. Although the six-day course will be mostly intensive classroom oriented, time will be allocated for on-the-water demonstrations.

Course fee (includes textbooks, lunches and breaks): \$4995 CDN (\$4795 before February 28<sup>th</sup>, 2002). Non-government members of the Canadian Hydrographic Association and The Hydrographic Society of America (THSOA) will benefit from the following discounts on the cost of registration:

Regular Members: \$ 50 reduction  
Sustaining/Corporate Members: 10% reduction

Non-member companies or organizations sponsoring two or more registrants will receive a 5% discount on the cost of registration.

To register, please complete this form and send along with applicable payment to:

Paul Davies – CHA Multibeam Course Director  
4105 Marcia Place  
Burlington, Ontario  
L7L 5B6

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Company \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ Prov. / State \_\_\_\_\_ Country: \_\_\_\_\_

Telephone: (\_\_\_\_) \_\_\_\_\_ Fax: (\_\_\_\_) \_\_\_\_\_ Postal Code: \_\_\_\_\_

E-mail: \_\_\_\_\_

Please circle (if applicable): CHA Regular Member CHA Sustaining Member  
THSOA Regular Member THSOA Corporate Member

Payment can be made by cheque or money order, payable to Canadian Hydrographic Association Multibeam Course or by Visa, MasterCard or American Express (The Credit Card debit will appear as M<sup>Q</sup>uest Marine Sciences).

Please circle (if applicable): Visa Mastercard American Express

Credit Card Number: \_\_\_\_\_ Expiry Date: \_\_\_\_\_

Signature: \_\_\_\_\_ Amount: \_\_\_\_\_

Name of Cardholder: \_\_\_\_\_

**Vendors are welcome. For more information on the course or to arrange to demonstrate your equipment please contact:**

**Paul Davies, Course Director at (905) 336 – 6448 (please leave message) or by email at: daviesp@lara.on.ca**

# 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](http://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

Address

City State ZIP Country

Employer

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)  
 **\$6 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.)

Credit card users please complete the following.

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