

# The Seahorse



*Newsletter published quarterly by*

The Hydrographic Society  
of America



U.S. Branch of  
The Hydrographic Society

Vol. VI No. 1

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

Spring 1996

## *Hydrographers meet in Mobile*

### **Highlight was dinner at USS *Alabama***

*by Pat Sanders, Coastal  
Oceanographics, Inc.*

**C**lose to 400 hydrographers from 14 nations met in Mobile, Alabama, the week of March 18 to attend the Advanced Hydrographic Surveying Workshop. The Workshop was co-sponsored by the U.S. Army Corps of Engineers - Topographic Engineering Center (USACE-TEC) and Coastal Oceanographics and was held at the Mobile Convention Center, located directly on the Mobile River.

Dr. Robert Mann, USACE-TEC, was the organizer of the Multibeam Sonar Short Course. Professors Larry Mayer, John Hughes Clarke, and David Wells from the University of New Brunswick provided detailed instruction in multibeam sounding techniques. Topics included the physics of multibeam sounding, data collection, data editing, data thinning and visual presentation techniques.

The Multibeam Sonar Short Course spanned three days of classroom instruction. Over 30 exhibitors complemented the workshop by providing a look at the latest hydro-

graphic survey equipment. "On the water" multibeam demonstrations were conducted by Reson, Simrad (Courtesy C&C Technologies), Allied Signal/ELAC, Odom, Submetrix, Triton and Delph (Elics).

Coastal Oceanographics presented its HYPACK'96 Training Course at the Workshop. This course lasted three days and provided dual training sessions in both the Windows and DOS versions of the HYPACK hydrographic survey software. Sessions focused on Basic Geodesy, Survey Preparation, Data Collection, Data Editing & Reduction, Plotting, Volume Computations and Export to CAD. The HYPACK courses were taught by Lazar Pevac, Chris Boone, Mike Kalmbach and Pat Sanders, all of Coastal Oceanographics.

Two roundtable discussions highlighted Wednesday and Thursday afternoon. On Wednesday, representatives from multibeam and motion sensor manufacturers took the stage to answer questions on the differences in their systems and how to get the most performance from them. On Thursday, Bill Bergen (USACE + HQ), Steve DeLoach (USACE-TEC), Erik Nielsen (Marimatech, DK), and Rick Sawyer (Arc Surveying and Mapping) took

the stage to discuss trends and developments in the hydrographic industry. Both sessions were led by Pat Sanders, President of Coastal Oceanographics.

The highlight of the social functions was the Wednesday night dinner at the USS *Alabama*. The retired WWII battleship served as the backdrop for this function. Due to the cold weather, dinner was moved inside the adjacent aircraft museum where diners ate next to an SR-71 and other famous military aircraft. Attendees toured the USS *Alabama* and the submarine USS *Drum* at their leisure. ✨

### **Hydrographer Certification Update**

*by Gerald B. Mills, NOAA, Coast  
Survey, Silver Spring, Maryland*

**I**n the early 1980s, the American Congress on Surveying and Mapping (ACSM) established a Hydrographer Certification Board to establish criteria by which individuals could be certified as being minimally competent to conduct hydrographic surveys. After a period of "grandfathering"

*(See Certification, page 2)*



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Mention in *The Seahorse* of commercial companies or products does not constitute an endorsement or recommendation by The Hydrographic Society. ✪

## Certification (from page 1)

professionals with extensive surveying experience, a certification examination was developed to assess applicants' knowledge, skills and abilities. Through these processes, over 210 hydrographers have been certified. Although this certification is not a substitute for registration, which is a legal act in many states, it has proven useful to contractors and clients in evaluating prospective hydrographers.

The ten-member ACSM Board has recently approved a new type of examination that will be more objective than that previously used and will undoubtedly expedite the review process. The new exam will consist of three parts and will be proctored by a representative of ACSM. The Certification Board is currently researching and writing questions for the examination which is expected to be ready by the fall of 1996.

The Board also approved revisions to the "experience requirement" that must be met before sitting for the examination. Qualified applicants must have five years experience in hydrographic surveying of which two years have been in responsible technical charge of surveys and two years have been in the field. These two-year periods may overlap if appropriate.

In a similar development in Australia, a Register of Accredited Hydrographic Surveyors has been established by the Institution of Surveyors, Australia (ISA). By the end of 1995, 35 applicants had been approved by the Australian Hydrographic Surveyors Panel based on experience and long term practice. It is intended that this "grandfathering" practice will be terminated within 18 months of the establishment in Australia of a course of instruction that meets the International Standards of Competence for Hydrographic Surveyors. These standards have been developed under the

auspices of the International Federation of Surveyors (FIG) and the International Hydrographic Organization (IHO). Although nearly 30 courses throughout the world are recognized as meeting these standards, including the Naval Oceanographic Office in Bay St. Louis, Mississippi, there is no such course available to civilians in the United States. ✪

(Used with permission)



## Corporate Member Press release

### 0.05° heading sensor from new TSS/Applanix alliance

**T**SS are to conduct the worldwide marketing and support of all Applanix marine motion sensing systems under a new alliance announced this week (March 1, 1996).

The first product from the partnership is a new Heading and Attitude Sensor "HDMS." Developed by Applanix, the new sensor provides, for

(See **TSS**, page 3)

**TSS** (from page 2)

the first time, 0.05° heading accuracy at low cost—twice the performance of existing higher-priced units.

TSS will also be marketing the high-performance Applanix Position and Orientation Systems, the "POS" range. These, and the "HDMS," will complement the existing portfolio of TSS Dynamic Motion Sensors to provide a solution to the complete spectrum of motion sensing requirements and applications.

Both companies see great benefit from ongoing cooperation in design and product development programs. Technology and expertise will be combined to maintain technical leadership backed by TSS distribution and after-sales support. ✪

## NCDC places images of significant weather events online

from "Earth System Monitor," NOAA/NESDIS, Environmental Information Services, Sheri Phillips, Ed.

The National Climatic Data Center (NCDC) Research Customer Service Group has placed a directory of over 100 GIF format images of significant weather events online. The images can be accessed through the NCDC's World Wide Web (WWW) Home Page at URL:

<http://www.ncdc.noaa.gov>

The directory includes images of most of 1995's hurricanes; previous year's storms such as Gilbert, Hugo and Andrew; significant events such as the March 1993 blizzard; and Advanced Very High Resolution Radiometer (AVHRR) images of various locations, both of the United States and from overseas. Some Defense Mapping Satellite Program (DMSP) very high resolution images are also

included. The directory will continue to be updated regularly.

Contact: NCDC, Phone (704) 271-4800, Fax (704) 271-4876, e-mail [satorder@ncdc.noaa.gov](mailto:satorder@ncdc.noaa.gov) ✪

The deadline for submission of articles for *The Seahorse* is July 19, 1996

## Announcement

by Exec. Sec. Jack Wallace

If you want to know more about the HYDRO '96 conference in Rotterdam, The Netherlands, you can access its web page:

<http://www.design.nl/hydro96/>

Another web page of interest to many of us is that of the F.I.G. (International Federation of Surveyors). Most of us know that F.I.G. (for many years) has tried to keep us from saying the acronym as a word, "fig." Their web page, however, is going to make that effort much more difficult. It is called the "figtree" and is at the address:

<http://www.ps.ucl.ac.uk/figtree>



The Hydrographic Society has had a request for info. on the latest U.S. Army Corps of Engineers (USACE) hydrographic manual. It is Engineer Manual EM 1110-2-1003 (31 October 1994) Hydrographic Surveying, and it can be obtained free of charge from

the USACE Depot, phone 301-394-0083. ✪

## Oceanology International—Pacific Rim 97 World Trade Center, Singapore, May 12-14, 1997

Info. furnished by Of Pacific Rim

Oceanology International Pacific Rim 97 will be the first of the series to move outside UK in response to the rapidly expanding opportunities in the Asia Pacific market for marine ocean science and technology. It will attract professionals from the whole Asia Pacific region in coastal protection, computing, diving, dredging, hydrography, marine environmental sciences, marine survey, measurement and instrumentation, meteorology, navigation, oil & gas production, pollution monitoring and control, ports & harbors, ROVs, remote sensing, resources from the sea, water authorities, and all their ancillary specialist services.

Alongside the exhibition will run three major conferences:

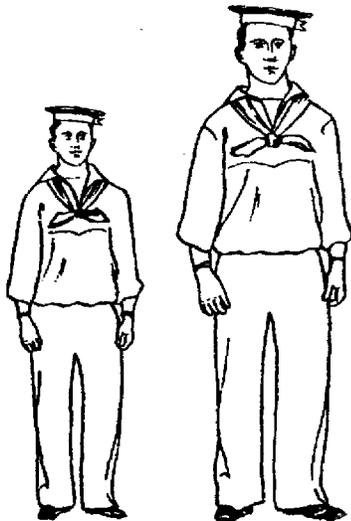
- ◆ *OI Pacific Rim 97* will deal with a broad range of operational oceanography and technology with particular emphasis on the challenges facing the countries on the Pacific Rim from deep water drilling to tsunamis.
- ◆ *COSU 97—Coastal Ocean Space Utilization* focuses on the sustainable development and utilization of the coastal ocean and its resources.
- ◆ *IOA 97—The International OTEC/DOWA Association ad-*

(See **Pacific**, page 4)

[Ed. Note—Some wag has furnished the following to *The Seahorse*. It appears to be a bald-faced plea for funding support. I wonder if it succeeded. It is from the ... ]

# ANNUAL REPORT OF THE SUPERINTENDENT, UNITED STATES COAST AND GEODETIC SURVEY

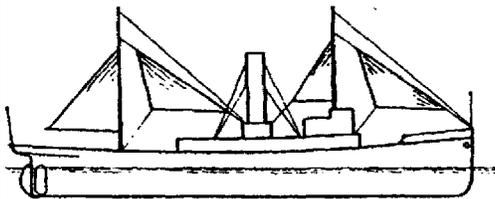
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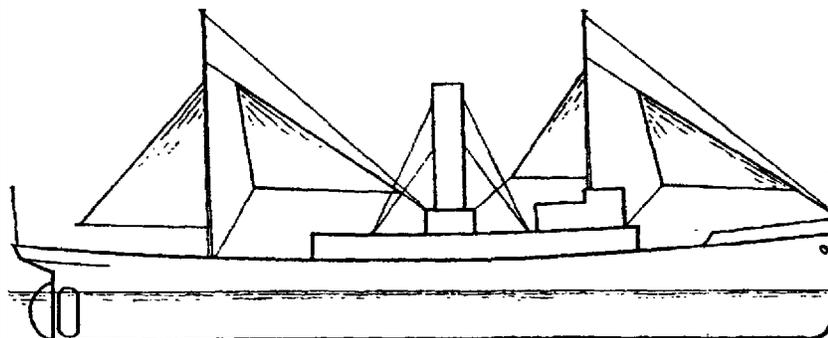
UNITED STATES  
and ALASKA

BRITISH ISLES

Diagram of Men, Ships and Coast Line of the British Isles, and of the United States and Alaska, showing relative number of surveying officers and men, tonnage of surveying vessels, and the coast line covered by their respective surveying services.



UNITED STATES and ALASKA



BRITISH ISLES

Coast line of the United States and Alaska

Coast line of the British Isles

## Pacific (from page 3)

dresses the potential of ocean water supply for using temperature gradient for ocean thermal energy conversion (OTEC) and deep ocean water applications (DOWA).

The Pacific Rim countries offer a huge potential market for marine science and technology over several decades; average per capita incomes in the region are high and the economies of the area are thriving, the economic growth rate of approximately 9 percent per annum has been sustained and the population growth of around 7 percent indicates a fast expansion of demand for all technologies.

Brunei, Malaysia and Indonesia continue to have strong oil revenues and can begin to finance programs previously funded by agencies such as UNESCO, IOC and World Bank.

Many of the countries of the Asia Pacific region contribute to the Global Ocean Observing System. All of them are making increasing use of satellite remote sensing technology for coastal observation and monitoring, meteorology and for protection of their boundaries. There already exists in Asia a program to monitor marine pollution, particularly from land-based sources and soil erosion from land clearance; monitoring sites have been set up in Philippines, China and the Straits of Malacca for what may become a multi-million pound business.

The United Nations Convention on the Law of the Sea has given countries such as Indonesia, with its huge number of archipelagos, enormously increased coastlines to monitor, protect, and eventually develop, with new markets for surveillance and monitoring equipment to protect its EEZ.

There are defense applications for police and coast guards against illegal immigration, piracy and, above all,

(See **Pacific**, page 5)

Pacific (from page 4)

illegal fishing. So monitoring and surveillance, patrolling, remote sensing and navigation equipment are required. Also, hydrographic and acoustics technology are of interest to the region's navies.

The two billion dollar annual live seafood market is expected to expand both for SE Asian consumption and abroad. Aquaculture and fisheries are important industries in the Pacific region which need marine technology to manage and reap maximum yields.

Vietnam is involved in new port development and reconstruction. Singapore runs the world's busiest container port using GPS to pinpoint movement of containers around the port, with all of the traffic-monitoring problems that such a volume of shipping implies.

Tourism is a major 'coastal ocean resource' in Southeast Asia. The SE Asian countries urgently need to investigate and manage their waters' ecological diversity which is estimated to be both the richest and the poorest known on the planet.

The World Trade Centre lies immediately adjacent to the waterfront where survey vessels can be berthed. Already, France and Taiwan have indicated their intention to bring a vessel.

For further information on the exhibition and conference, please contact:

Lesley Ann Sandbach, Project Director, OI Pacific Rim, Ocean House, 50 Kingston Road, New Malden, Surrey KT3 3LZ. Tel: +44 (0) 181 949 9222 Fax: +44 (0) 181 949 8186 e-mail: [oiasia@spearhead.co.uk](mailto:oiasia@spearhead.co.uk)

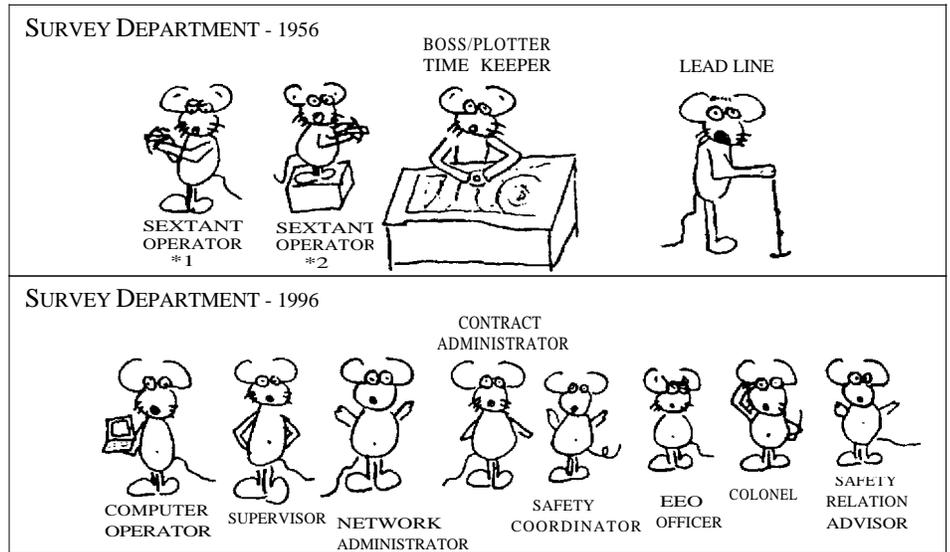
See us on the World Wide Web:

<http://www.acrso.ns/ca~spearhead/>

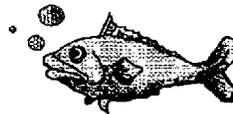


RAT-PACK

(Used with permission of THSOA Trustee Pat Sanders, Coastal Oceanographics, Inc.)



Salty Facts



from "Naval Meteorology and Oceanography Command News," Cathy L. Willis, Ed.

The Dead Sea is neither dead nor is it a sea. It is a salt lake; the saltiest body of water in the world. Nearly a third of the water's content is dissolved salt and other minerals. While this extreme salinity—more than seven times that of seawater—does not support fish life, many tiny organisms thrive there. Some of these are capable of photosynthesis, absorbing the energy of sunlight and using it to convert carbon dioxide and water to carbohydrates. The shoreline of the Dead Sea is more than 1,300 feet below the mean sea level of the nearby Mediterranean Sea and is the lowest area on the Earth's surface.

**BINNACLE LIST:** Many novice sailors, confusing the words binnacle and barnacle, have wondered what their illnesses had to do with crusty growths found on the hull of a ship.

Their confusion is understandable. Binnacle is defined as the stand or housing for the compass located on the bridge. The term "binnacle list," in lieu of "sick list," originated years ago when ship's corpsmen used to place a list of the sick on the binnacle each morning to inform the captain about the crew's health. It came to be called the "binnacle list." ✧

Corporate Member Press release

EdgeTech announces the acquisition of Precision Signal, Inc.

EdgeTech is pleased to announce that they have acquired the assets of Precision Signal, Inc. (PSI) as of January 23, 1996, and have also established a Florida base of operations to further develop acoustic chirp technology for various government and commercial applications.

(see Edge Tech, page 6)

## EdgeTech (from page 5)

PSI developed the X-STAR Sub-bottom Profiler and the MIDAS Top-side for EdgeTech over the last few years. This acquisition will improve customer service on these and future products and allow for more effective product development over the coming years. ✨

## NEWS FROM THE CHAPTERS

### HOUSTON CHAPTER

Secretary Phil Summerfield writes that Brian Anderson of LCT discussed the benefits of augmenting seismic data with gravity measurements at their January meeting. Brian's presentation contained several illustrations of the data available during data processing and the potential gains. All of this is achievable at minimal expense.

A proposed St. Valentine's Day dinner was canceled in favor of planning for a very successful Christmas Party. Jim Cain and Noel Zinn of Western Geophysical are responsible for planning the event.

At the February meeting, Peter Trabant presented a paper entitled: "Sailing with GPS (Global Positioning Sextant) Across the Atlantic to the Internet." He reminisced on his sailing expedition from Galveston to Paris. His colorful presentation contained many slides of beautiful ports of call along his varied and sometimes tortuous journey. He demonstrated that in today's highly technological world, GPS can indeed refer to a "Global Positioning Sextant".

Peter has been a consultant oceanographer for the past 22 years after

receiving his PhD at Texas A&M in 1978. He is the author of a textbook on high resolution geophysics and a recent textbook on sequence stratigraphy.

The March meeting hosted Jim Bettencourt of Triton Data Systems who discussed the evolution of Geographical Information Systems (GIS) to the present day as well as providing an insight into the future combination of GIL and the Internet. Despite initial Windows 95 compatibility problems, all of the hardware remained functional and allowed Jim to make a very professional presentation.

Jim demonstrated the impact that the Internet and computing advances in general have had and will continue to have on GIS applications; namely the availability of vast quantities of diverse data in very short time frames. These factors combine to allow more efficient and better informed decisions to be made. One important question that arose was that of responsibility for the data that is made available via the Internet.

☆☆☆☆

No reports were received from the other chapters. ✨

### From the Editor's Desk



by Dale Westbrook

**R**on Furness, the editor of the Australasian Branch newsletter, *Hippocampus*, had some kind words to say about *The Seahorse*. He especially

liked the last "On the Next" column by "Goldbrick", in which the IHQ office was parodied. However, he questioned the necessity of "Goldbrick's" using a pen name. Well, in a nutshell, it *does* prevent the subject of such parodies and gibes from getting even (except in print). So, if any of you want to respond to anything we have to say in *The Seahorse*, please do so. We will withhold your name, if so desired.

I was surfing the Internet the other day, and I found the e-mail address of a fellow barbershopper of whom I have not seen or heard for over 20 years. At the same time, I was wondering how many Hydrographic Society members are also barbershoppers.

I've been in the Society for the Preservation and Encouragement of Barber Shop Quartet Singing in America, Inc. (SPEBSQSA) for 26 years. A member of the Bowie, Maryland Chapter. We sing male four-part harmony in the barbershop style in both quartets and choruses. The Society includes Canada, and there are affiliates in England, Sweden, Netherlands, Germany, Ireland, New Zealand, South Africa and Australia. Total male membership: 37,789. There are also similar organizations for women.

Both of our Societies are small in membership. (Naturally, we consider ourselves the elite.) So the chances of my finding a fellow barbershopper who is also a member of THS are quite slim. But, if one of you (male or female) reads this, drop me a line, or send me an e-mail. I'd love to meet you.

Because of poor e-mail service and increasing difficulty in logging on, I have discontinued my Compuserve membership. I have signed up with America Online and have had no difficulty, *so far*.

(See **Editor**, page 8)

# Application for Membership

## The Hydrographic Society of America and the U.S. Branch of The Hydrographic Society

Membership in The Hydrographic Society is open to any individual or organization with an interest in surveying afloat. No formal qualifications are required.

The Hydrographic Society of America (THSOA) serves as the focal point for activities in America. Members of THSOA receive *The Seahorse* newsletter, are eligible for membership in local chapters, and receive a discount on registration at THSOA sponsored events. Local chapters have been formed in Houston, Tx., Seattle, Wash., and Bay St. Louis, Miss. THSOA also provides administrative support to the U.S. Branch of The Hydrographic Society.

The Hydrographic Society (THS) was founded in 1972 at the Northeast London Polytechnic in London, England. Membership numbers over 1800 individual and 270 corporate members from 66 countries. For those members interested in the international aspects of the organization, the U.S. Branch provides a convenient way to pay dues directly in U.S. dollars. Members of the U.S. Branch receive all the benefits of THS, including quarterly issues of *The Hydrographic Journal*, an annual Diary, and a discount on registration at sponsored international events.

**The dues structure allows individual and retired members to opt for THSOA alone or both THSOA and THS.** Individual, Retired, and Student Memberships begin on entry and are renewed on April 1. Corporate Memberships are renewed on January 1. Dues are not prorated, but members joining in the middle of the year receive all copies of the publications for that year.

Corporate Members receive two copies of *The Hydrographic Journal*, reduced rates for advertising in the *Journal* and Diary, a listing in the October issue of the *Journal*, and access to the mailing list of those members who have consented to have their names included.

NAME	Title (Mr, Ms, CAPT, Dr, etc.)	First	M.I.	Last
ADDRESS (for mailing and correspondence)				
CITY	STATE		ZIP	
EMPLOYER		EMPLOYER CITY and STATE		
TEL:	FAX:		e-mail address:	
YEAR	(From which membership is to be effective):			199
<input type="checkbox"/> Check box if name may be included on mailing list provided to Corporate Members				

### ANNUAL DUES (Check appropriate box)

<b>INDIVIDUAL</b>	<input type="checkbox"/> THSOA \$15	<input type="checkbox"/> THSOA/THS \$55
<b>RETIRED</b> and no longer employed in the profession of sea surveying	<input type="checkbox"/> THSOA \$10	<input type="checkbox"/> THSOA/THS \$30
<b>STUDENT</b> full-time undergraduate or graduate	<input type="checkbox"/> THSOA/THS \$15	_____ Name of Institution
<b>CORPORATE</b>	<input type="checkbox"/> THSOA/THS \$225	
<b>ASSOCIATE CORPORATE</b> available to a different location or unit of a parent Corporate Member	<input type="checkbox"/> THSOA/THS \$125	_____ Name of Parent Corporate Member

**STATEMENT:** I wish to make application for membership in The Hydrographic Society. I agree to abide by the Articles of Association and to further its aims and objectives. I declare that the answers to the above are accurate to the best of my knowledge and belief. I agree that the decision of The Hydrographic Society Executive in regard to this application is final.

Please return with payment to:  
The Hydrographic Society  
P.O. Box 732  
Rockville, MD 20848-0732

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

**Editor** (from page 6)

My new e-mail address is: **DWestbr@aol.com** I'm sorry if this has inconvenienced anyone. It is too bad I had to change it so soon after I had just published my original address in the last issue of this newsletter. That's life! ✨

**New Corporate Member**

**H**ydro Projects, Inc., a well-known consulting/project management company in the UK, established a subsidiary business in Houston, Texas, in October 1995. Hydro Projects is involved in oper-

ations including engineering, seismic, high-resolution and hazard surveys. Hydro Projects would like to hear from survey personnel interested in contract employment. Those interested, please contact Mike Horwitz at Tel: (713) 783-0067.

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**1996 Canadian Hydrographic Conference  
June 4,5 & 6  
Halifax, Nova Scotia**

Conference focus: High-tech and emerging technologies related to the following topics.

- **Differential Global Positioning System (DGPS)**, for both marine navigation and unique new hydrographic applications
- **Multi-Beam Acoustic Survey Systems**
- **Electronic Chart Display and Information Systems (ECDIS)**

Questions or inquiries should be directed to:

Chair, 1996 Canadian Hydrographic Conference  
Canadian Hydrographic Service  
Department of Fisheries and Oceans  
Bedford Institute of Oceanography  
P.O. Box 1006  
Dartmouth, Nova Scotia  
Canada B2Y 4A2

Contact:  
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