

# LIGHTHOUSE

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### Flint Island Lighthouse

Photograph credit: Department of Fisheries and Oceans

### Flint Island Lighthouse

The photo on the cover is taken with the camera looking westward towards the mainland. The image is a classic view of the east coast of Cape Breton Island – a rocky ocean coast. Showing both a bit of the old and new, the remains of buildings can be seen in the photo as well as a modern solar panel. Flint Island is just north of Morien Bay and lies between Glace Bay and Louisbourg. This area was the site of some of the earliest coal mining in North America, first by the French at the Fortress of Louisbourg then later, as a commercial venture.

List of Lights: 770  
Chart 4367  
Position: 46 10 51N 59 46 13W

Light Characteristic: Fl (2) 25s  
Focal Height: 22,57m  
Nominal Range: 10M

Source: Canadian Coast Guard Database

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# Editor's Note / Note du rédacteur

Using this page to write about the importance of hydrography is akin to using the pulpit to preach to the choir. The readership is well aware of the relevance of hydrography to the lives of Canadians and to maritime world. The slogan "nautical charts protect lives, property and the marine environment" speaks volumes. There is a prime directive to promote the safe and efficient use of our waters. Arguably, the impetus to set about systematic surveying is born of disaster. Witness the effect of tragedies such as the loss of the *Asia* in 1882 and the grounding of the *Exxon Valdez* in 1989. These events gave rise to, or at least fostered, the birth of hydrographic surveying in Canada, and the push to create electronic navigational charts. Students of history know that exploration is the precursor to discovery and that enables the exploitation of a resource. It follows then that hydrographic surveying and charting are a form of infrastructure that is both necessary and a continued imperative in the development of a maritime nation's ability to develop and trade. Scientists are keenly aware that the collection, analyzing, compiling and promulgation information about tides, currents, water levels and depths are an essential step in better understanding our relationship with the marine environment. The wonderful ability of multi-beam bathymetry and backscatter data to reveal the characteristics of the sea floor and water column has greatly increased scientific understanding and this will surely continue to grow exponentially. Hydrography does matter. You know this. So why do I risk boring you by saying it all again? Allow me a brief story to illustrate.

Recently, I had the occasion to find myself in the pool at the Dartmouth Sportsplex. It was a welcome indulgence that capped an all too infrequent event – exercise. It was still early and the mid-winter skies were dark. In spring and summer and early fall, the dawn would have broken over Halifax Harbour and a southern view of Georges Island, the front range light, the Halifax skyline and the harbour ferry in mid-traverse would have greeted the eye. The facility has a variety of characters that come and go I was sharing the pool with a Cape Bretoner known to his friends as "Mr. Big". He spends much of the year up north, engaged in a variety of land survey functions. We were exchanging small talk and he asked me what I did and who I worked for. When I told him, he barked "Hydrography. I thought they would have got that all done by now". I was dumbfounded and before I could recover, Mr. Big marched off to the showers.

I had actually heard that same line before – when a Newfoundland comedian called Snook was roasting an assembled crowd. He was joking, I think. Mr. Big may have been too because, when his friends teased him about having surveyed all of the north, he was said to have quickly replied that his next mission was to survey the moon. The point is, not everybody knows a lot about hydrography. Those that do are most familiar with those aspects that pertain to them. Every Boat Show seems to draw a handful of people who either want to show you where their cottage is or want to ask you what those numbers all over the water mean. There are also many folks who know far more about the chart, the community, and navigation in general than I ever will. So sometimes you talk and sometimes you listen [and take notes too]. Whatever the circumstances provide; it is the necessary process of engagement.

There is sometimes a reticence to blow our own horn. Maybe it is part of the Canadian psyche. Yet I have seen the public become genuinely fascinated by scientific displays. Even the more cantankerous souls appreciate the effort that it takes to communicate with them; to listen, to show, to explain. When people know what you do, they may be more eager to approach with their ideas and questions. At another time, that same area of the Sportsplex provided a great view of dredging operations which yielded some questions, investigations and a deepened understanding of the characteristics of the harbour. As the current editor of this long standing publication, I can tell you that it is seldom a bad idea to contribute. Your submissions are most welcome. Indeed, the danger in keeping quiet, in holding back, is that we risk not having our stories told.

*Lighthouse* is a professional journal that serves several functions. It informs the membership about news – like the cessation of Loran C. The milestones of current and past members are presented. We see both the contributions and the technology and careers are intertwined as in the testimonial to Mr. Mortimer. The journal is a means for industry to advertize, profile themselves and relay information about products and upcoming events. The association uses the journal to let people know about past and future meetings, provide contact information and let students know about the (revised) bursary. The readership is made aware of upcoming conferences and key papers are often reprinted. In this way, the members are engaged and encouraged to participate in sharing their stories. So this is not so much about preaching to the choir. It is more about helping the choir to preach.

Craig Zeller

# Message from the National President

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## Mot du Président national



Greetings,

As we look forward to activities in 2010, we also look back on 2009. The year passed has been an eventful one and we have continued to make gains in our organizational structure and our public profile as the National body representing Hydrography in Canada.

We have had the MOU between the CIG and the CHA reinstated for another five years and continue to participate actively in the CIG as their Hydrography Committee, as Hydrography Technical Councillor, as a member of the CNC FIG co-ordinating Committee and by nominating two of our Past Presidents to membership of their Certification Committee.

We held several Board of Directors' meetings including our AGM on March 24<sup>th</sup>, had the Non-Profit Directors and Officers Liability Insurance with Branch coverage put in place, regularized our National Bank Account and had the signatures updated, obtained an Official Copy of our Articles of Incorporation and established several committees (Hydrography, National Student Award, Web Site renewal, National Elections) together with our Lighthouse Committee which are functioning well. Probably our most important achievement was the revitalization of our Ottawa Branch, achieved with the strong support of the CHS.

We continue to liaise with the CCLS re their Professional Surveyors Canada initiative, scheduled for launch in 2010 and have attended and represented the CHA at Regional, National and International meetings such as the AOLS AGM and ACLS Regional Meeting in Toronto on February 19<sup>th</sup>, the U.S. Hydro' 09 and THSOA AGM in Norfolk, Virginia May 11- 14, the 5<sup>th</sup> National Surveyors Conference and ACLS AGM in Canmore, Alberta, May 27 - 29, the CHC 2010 Steering Committee Meeting in Ottawa on October 6<sup>th</sup>, and the 7<sup>th</sup> FIG Regional Meeting in Hanoi, Vietnam Oct. 19 - 22.

I thank our members for the confidence and trust placed in me by re-electing me to be your National President for a second term, however I strongly suggest it is not too early to start seeking a successor. I would welcome interest and be prepared to offer my strong support and advice to any potential successor.

I would also like to congratulate our member Dr. Michael Sutherland on his confirmation as Chair Elect of FIG Commission 4 (Hydrography).

In closing I wish you all the very best for a peaceful, prosperous and productive 2010 and look forward to seeing many of you in June at CHC 2010 in Quebec City, where we will be celebrating World Hydrography Day June 21<sup>st</sup> as part of the Conference.

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Bonjour.

Tout en attendant avec impatience les activités de 2010, regardons aussi l'année 2009. La dernière année fut remplie d'événements alors que nous avons continué de faire des gains dans notre structure organisationnelle et dans notre image publique comme représentant National de l'hydrographie au Canada.

Le protocole d'entente entre l'ACSG et l'ACH a été renouvelé pour un autre cinq ans. Nous continuons aussi de participer activement dans l'ACSG en tant que Comité hydrographique, comme conseiller technique en hydrographie, comme membre du Comité de coordination du CNC de la FIG et en proposant deux de nos anciens présidents comme membres de leur Comité de certification.

Nous avons tenu plusieurs réunions de l'exécutif incluant notre AGA le 24 mars, instauré l'assurance de responsabilité sans but lucratif des directeurs et des représentants incluant une couverture pour les sections, régularisé notre compte bancaire national et mis à jour les signatures, obtenu une copie officielle de nos règlements d'incorporation et établi plusieurs comités (hydrographie, bourse d'étude pour étudiant, mise à jour du site internet, élections nationales) ensemble avec notre comité du Lighthouse lequel fonctionne bien. Certainement, notre plus importante réussite a été la relance de notre section d'Ottawa réalisée avec la forte participation du SHC.

Nous continuons d'assurer la liaison avec le CCAG concernant l'initiative des arpenteurs professionnels du Canada, planifiée pour démarrer en 2010. Nous avons assisté et représenté l'ACH aux réunions régionales, nationales et internationales comme l'AGA de l'AAGO, la réunion régionale de l'AATC à Toronto le 19 février, la US Hydro' 09 et l'AGA du THSOA à Norfolk, Virginie du 11 au 14 mai, la 5<sup>e</sup> conférence nationale des arpenteurs et l'AGA de l'AATC à Canmore, Alberta du 27 au 29 mai, la réunion du comité directeur de la CHC 2010 à Ottawa le 6 octobre et la réunion régionale de la FIG du 19 au 22 octobre à Hanoi, Vietnam.

Je remercie nos membres pour l'assurance et la confiance qu'ils m'ont accordées en me réélisant comme président national pour un second terme. Cependant, je recommande fortement de penser déjà à un successeur. Je souhaite la bienvenue aux intéressés et je suis prêt à offrir tout mon support et mes conseils à un candidat potentiel.

Aussi, j'aimerais féliciter notre membre, le docteur Michael Sutherland pour sa confirmation comme président élu de la Commission 4 du FIG.

En terminant, je vous souhaite mes meilleurs vœux de paix, de prospérité et de productivité pour 2010 et j'espère revoir bon nombre d'entre vous en juin à Québec, à la CHC 2010 alors que nous célébrerons la journée mondiale de l'hydrographie le 21 juin lors des activités de la conférence.

George McFarlane, National President / président national

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# The Marine Cadastre

By: Michael Sutherland, Department of Geomatics Engineering and Land Management,  
University of the West Indies, St. Augustine, Trinidad and Tobago

Boundaries are implicit in the use of marine and land environments. Local, regional and international laws and value systems determine acceptable behaviours among groups of people, in relation to defined spatial extents over periods of time.

Individuals and groups of individuals pursue socio-cultural, socioeconomic, political, and environmental aims through the use of spatial extents by necessity, because no activity can take place except in a place and in a period of time. The physical limit on the supply of marine and land spatial extents often translates to competition in the use of those spaces and this is governance problem. In many circumstances multiple use of a particular spatial extent is not hindered by the the physical attributes of the spatial extent, as well as by the socio-cultural, socioeconomic, and political pressures placed thereon. Often, however, the use of space over time for one objective removes its use for others. Regardless of which situation exists, decisions are required to be made regarding the use of space over time and, among other things, boundary information becomes important in the process as societies pursue their various objectives.

It is this need for boundary information, as well as for other land information to support governance decision making that drives the development and maintenance of cadastres. Cadastres have generally been characterised as juridical or fiscal, according to the main purpose they are to serve. The concept of a multipurpose cadastre has gained international acceptance because of its intuitive information management principles. The multipurpose cadastre combines the characteristics of both fiscal and juridical cadastres and as well links those parcel/boundary based information to other types of spatial information. The result is more complete information about a spatial extent and therefore more complete information support for land-related decision making. "Multipurpose" is relevant to the marine cadastre concept that offers decision support information for complex environments such as oceans and seas.

Marine environments are complex both environmentally as well as legally. Marine spaces contain pelagic, benthic and sub-benthic environments and resources that are the targets of human management and exploitation. Local, regional and international laws and treaties relate rights, interests, restrictions and responsibilities to those environments. The United Nations Convention on the Law of the Sea, the United Nations Agreement on Straddling and Highly Migratory Fish Stocks, and various national

legislations such as Canada's Oceans Act are just some of those instruments requiring governance of marine spaces. By providing appropriate spatial information to support decision making in those regards, the worth of a marine cadastre can be understood.

What then is a marine cadastre? A number of definitions have been put forward since 1999. These include:

- A system to enable the boundaries of maritime rights and interests to be recorded, spatially managed and physically defined in relationship to the boundaries of other neighbouring or underlying rights and interests<sup>1</sup>;
- A marine information system, encompassing both the nature and spatial extent of the interests and property rights, with respect to ownership, various rights and responsibilities in the marine jurisdiction<sup>2</sup>.
- An information system that allows rights in marine space to be defined, recorded, visualised and managed<sup>3</sup>.

As with other cadastres, the marine cadastre will have spatial and textual components. Due to the obvious 3-dimensional nature of marine environments there are a number of technical issues that require attention in marine cadastre system development. These include (among other things) horizontal and vertical datums definitions and issues, boundary definitions and demarcation, 3-dimensional boundary information visualization and management, database designs that encapsulate both the 3-dimensional aspects of marine spatial extents and the complexities of rights to be managed. There are many stakeholders with rights and interests in marine spaces. Therefore stakeholder and legal issues are also complex due to the variety of overlapping rights and interests to be managed and the usual lack of cooperative, collaborative, or integrative governance mechanisms that would make the sharing of information easier and provide more complete information for decision support.

A number of international jurisdictions have invested in marine cadastre research and development. These include Canada, Australia and the United States of America (USA).

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<sup>1</sup> Roberston, B., Benwell, G. and Hoogsteden, C. (1999)

<sup>2</sup> Nichols, S., Monahan, D. and Sutherland, M. (2000)

<sup>3</sup> Ng'ang'a, S., M. Sutherland, S. Cockburn and S. Nichols (2004)

All three have developed web-based versions of a marine cadastre. Other countries, such as Israel and Malaysia (for example), have begun research in this area. The USA and Australia have funded national initiatives. Canada is contemplating a national initiative and a prototype proof of concept received federal funding. No development so far has solved all the issues relating to marine cadastre development and international research continues. [4]



### Biography

Michael Sutherland holds a Ph.D. in Geomatics Engineering from the University of New Brunswick, Canada. He is currently the Programme Coordinator of the B.Sc. in Land Management (Valuation) Programme in the Department of

Geomatics Engineering and Land Management, University of the West Indies, St. Augustine, Trinidad and Tobago. Michael is a member of the Canadian Hydrographic Association, Canadian Institute of Geomatics, and the Institute of Surveyors of Trinidad and Tobago. He is a Vice-Chair and Chair-Elect (Commission 4) of the International Federation of Surveyor (FIG) and represents the FIG to the Permanent Committee on GIS Infrastructure for Asia and the Pacific.

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# Marine Boundaries - Towards a Simple Data Representation

By: Nick Stuijbergen, Canadian Hydrographic Service

This is to advocate a simpler definition of delimiting a boundary in the marine environment.

A system that is legally enforceable and readily understood by non-technical, non-specialized professionals.

The design rule is:

A marine boundary must be defined strictly as the straight line on the sea surface, between a pair of waypoints (nodes) given in geodetic latitude and longitude on WGS-84 horizontal datum.

This "straight line definition" is realized by ensuring that the distance between nodes is short enough, so that the fine geodetic distinctions between "ellipsoidal loxodrome or orthodrome", rhumb line, great elliptic arc (etc.) and the true geodesic do not matter; not needed at sea.

Fine distinctions, that disappear within a specified practical tolerance, within which the separation between lines under the diverse geodetic concepts amounts to less than 1 metre, for example.

Practical implementation is accomplished by a design rule, that specifies a short maximum distance between nodes of about 100 kilometres, or perhaps 1 degree of longitude.

Since the implementation of boundary crossing detection will be by software, often developed by contractors with a short-term outlook, there is definitely a risk of misunderstood specifications to cause difficult software malfunctions.


Past experience has already indicated the possibility of "errors of misunderstood sophistication", that are costly to fix. And create a perception of unreliability of a product that would not stand scrutiny in a court of law. Then possibly legal action to pursue a boundary transgression could be derailed in court, due to misunderstood complexity in the boundary definition statement.

Curved boundaries (e.g. the circular-shaped border around St Pierre and Miquelon islands) can be represented by a list of way-points of a polyline sequence of chords, that closely approximates the arc of the specified boundary. Thus curved boundaries may be specified to conform to this "straight line definition".

The straight line specification also greatly simplifies the data structure, a core component of any software dealing with computational geometry. A linked-list data structure, with additional pointers, is likely a sound choice. It is versatile and adequate for representing marine boundary information in the computer.

## Conclusion

An idea is briefly outlined, for a simplified perception of marine boundary delimitation, within specified tolerances.

Secondly a hint that software implications (i.e. data structure) is a significant fundamental consideration. 

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## CALENDAR OF EVENTS

- FIG International Congress 2010, Sydney, Australia, April 11-16, 2010
- National Surveyors Conference and ACLS AGM, St. John's, Newfoundland and Labrador, May 6-8, 2010
- Canadian Geomatics Conference, Calgary, Alberta, June 14-18, 2010
- Canadian Hydrographic Conference, Québec City, Québec, June 21-23, 2010
- Advisory Board on the Law of the Sea Conference, Rostock-Warnemunde, Germany, November 2-5, 2010
- United States Hydrographic Conference, Tampa, Florida, April 25-28, 2011

# International Federation of Hydrographic Societies

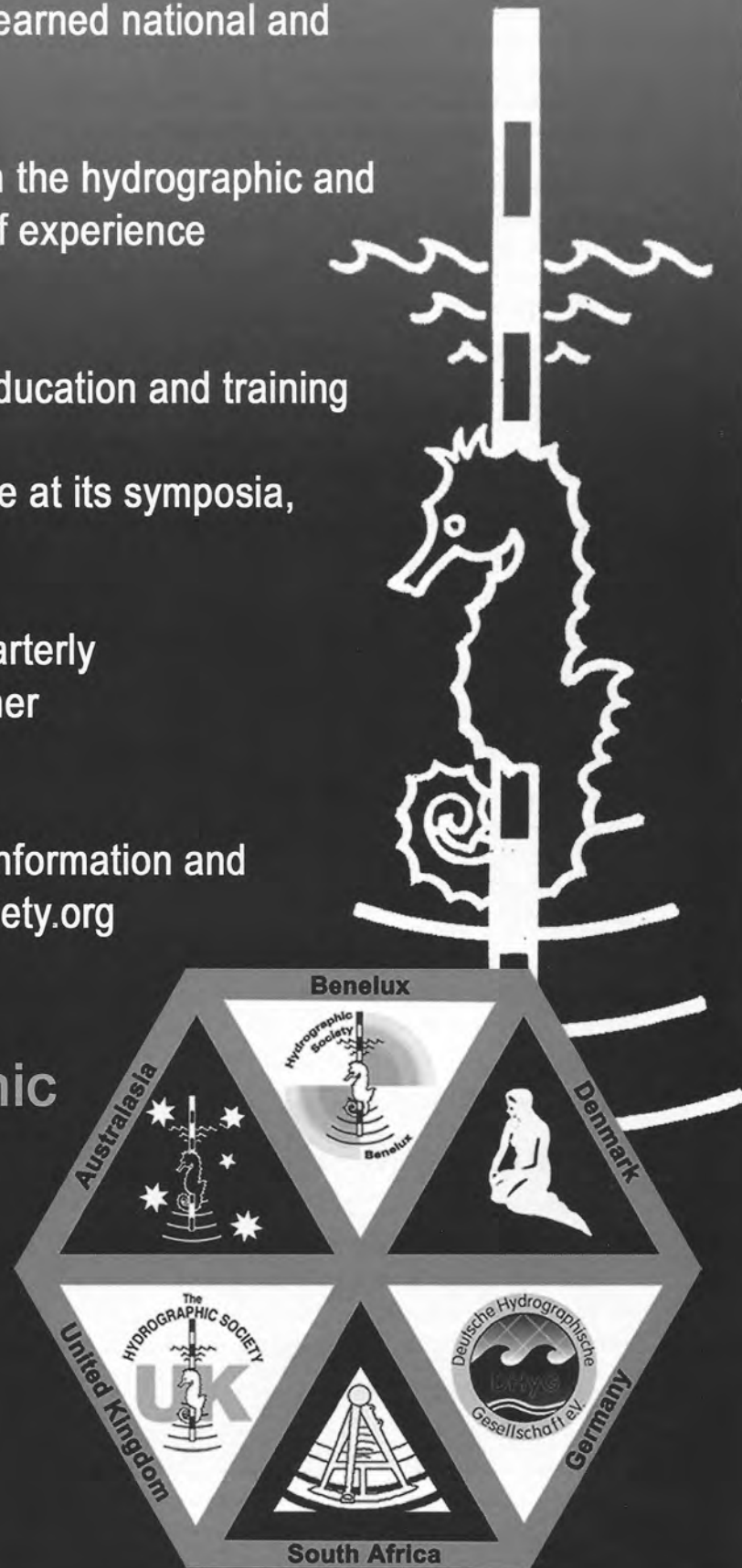
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- supports improved standards in education and training
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## Queen Elizabeth 2 Grounding - A Lesson Perhaps

By: Nick Stuijbergen, Canadian Hydrographic Service

On August 7<sup>th</sup>, 1992, the cruise liner Queen Elizabeth II grounded on a rock, near Cuttyhawk Island, in Martha's Vineyard Sound, in the vicinity of Rhode Island. All 1824 passengers were safely evacuated. Costly damage to the hull ensued.

An old proverb ( source unknown) states:  
"A ship aground is a beacon to seafarers".

Here it might apply in a less literal sense. Apart from other issues of the event, it suggests an improvement in nautical chart presentation, to emphasize the least depth of a given neighbourhood. One way to emphasize such indicated depths, is by highlighting these to readily catch the eye of the prudent navigator, when laying out the intended track.

A slightly larger depth figure, designed in slightly bolder font would be sufficient to make the indicated depth stand out among neighbouring soundings, sometimes in a crowded presentation, and be more readily noticed by the mariner on the bridge.


For charts of earlier vintage, prepared with less than 100 percent bottom coverage, the indicated depth would signal a region of avoidance, with an adequate margin

of safety to be observed, in depth and location. Subsea navigation hazards are invisible, obstacles to be avoided, not necessarily always accurately located, which implies the practice of some margin of clearance. Often in current survey practice, underwater hazards are pursued with precision, as if these were targets to be aimed at, and not obstacles to be evaded.

It is a matter of hazard avoidance, particularly for charts of earlier vintage, with less than 100 percent bottom coverage.

Very rocky bottom requires a wider tolerance to be observed.

In summary, the idea offered is: to highlight indicator depth values, by a modified numerals, in a slightly larger and bolder font, sufficient to stand out and be readily noticed by the chart user on the bridge.

It is possible that the change suggested here would diminish the risk of grounding accidents in the nearshore environment. 

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## Loran-C Termination Announcement

By: Nick Stuijbergen, Canadian Hydrographic Service


Stations of the U.S. Loran-C chains (and eLoran) have been switched off this February 08, 2010.

Canadian stations, operating in tandem with the United States, will be closed down this October 1st, 2010 approximately.

The full official announcement may be found on the Web: Search keywords: "Announcement regarding Loran-C Service Canada"

Web sites:  
[www.ccg-gcc.gc.ca/eng/ccg/atn\\_Loran\\_C](http://www.ccg-gcc.gc.ca/eng/ccg/atn_Loran_C) (*Canadian Coast Guard*)

[www.notmar.gc.ca/go.php?doc=eng/services/notmar/Loran-C-eng](http://www.notmar.gc.ca/go.php?doc=eng/services/notmar/Loran-C-eng) (*DFO*)

In our longer future it is possible that, when awareness of limitations and vulnerability of GPS in urban coverage is realized, a new low-frequency, ground-based radiolocation system of improved design might be developed. This to meet a need for more assured location services to improve security in densely populated cities, a robust backup to GPS. 

# Friends of Hydrography

## A Canadian Volunteer Group

We invite you to the Friends of Hydrography Web Site  
['http://www.canfoh.org'](http://www.canfoh.org)

The Friends of Hydrography are a small group of both retired and current Canadian Hydrographic Service (CHS) employees who believe there is a need to record and preserve the historical highlights of Canadian hydrography.

Please browse the many pages of the site to get a sense of the history of Canadian hydrography and the Canadian Hydrographic Service (CHS). If you ever worked with the CHS, or had friends who did, search the site for their names. If you don't find the name please contact us. Also, if you have photographs of ships or launches, used at any time by the CHS we would be grateful if you would share them with us.

The site is the primary distribution vehicle for Friends of Hydrography and is a work in progress. The site has grown nicely since its inception in 1998 and new information is added on an opportunity basis.

Please feel free to contact us at ([CANFOH@cogeco.ca](mailto:CANFOH@cogeco.ca)) We would be delighted to hear from you. Your questions, comments, corrections and/or contributions to the site are welcomed.

*Supported by and in collaboration with the Canadian Hydrographic Association and the Canadian Hydrographic Service*



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# The Canadian Hydrographic Association Award

## Letter From 2009 Recipient - Travis Hamilton

Dear Editor of Lighthouse,

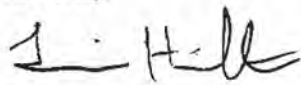
It is with great appreciation that I write to you in thanks for being chosen as the recipient of the 2009 Canadian Hydrographic Association student award. It is proving to be of great assistance in covering the cost of attending the University of New Brunswick.

From a young age I've always wanted to find a career that would allow me to enjoy the outdoors. This naturally led me to the Geodesy and Geomatics Engineering Program at UNB. Originally beginning with the plan of becoming a Land Surveyor, I eventually realized that mapping the ocean is where my true interests lied. Over the past year I have had the chance to gain practical experience through the Ocean Mapping Group at UNB. It is with the Ocean Mapping Group that I was afforded the opportunity to participate in the ArcticNet mapping program where I experienced a number of unique situations that would only present themselves in the Arctic Ocean. I also had the pleasure of being involved in a variety of coastal mapping programs in the Bay of Fundy and Gulf of Maine. This allowed me to appreciate the differences of working in these diverse environments.

Upon my graduation in the spring (May 2010), I am going to continue my education by completing a researched based masters program through the Ocean Mapping Group at UNB. The funding from organizations such as the Canadian Hydrographic Association have played a large role in allowing me to get to this point in my career, and for that I am especially grateful.

Thank you very much for your support.

Sincerely,



Travis Hamilton

See page 16 for Award information



*CHA Award Plaque*



*CHA Award Individual Recipient Medal*



*This regular feature provides information and current news from the International Federation of Surveyors (FIG) with emphasis on FIG Commission 4 (Hydrography).*

#### Commission 4 Newsletter – January 2010



#### The XXIV FIG International Congress Facing the Challenges – Building the Capacity

We're gearing up for the Congress and Working Week to be held this April 11-16 in Sydney, Australia. The Congress is co-hosted with the Surveying & Spatial Sciences Institute and will be held at the Sydney Convention and Exhibition Centre.

#### Technical Sessions

Over 900 proposals for presentations were submitted to FIG for this event. Commission 4 will be presenting ten sessions, five of which will be collaborative with other commissions- 5, 7 and 8. These joint sessions will feature work on vertical reference frames (datums), positioning at sea, coastal zone issues and the administration of marine spaces. A number of presentations will be from peer reviewed papers and two sessions will be offered as virtual poster or "Flash" sessions. Our sessions are planned as follows:

- Administration of Marine Spaces (4, 7)
- Economic Benefits of Hydrography
- Coasts and Natural Resources (4, 8)
- Coastal Zone Issues (4, 8)
- Hydrographic Capacity Building
- Hydrographic Surveying in Practice with High Resolution Data
- Measuring and Monitoring the Coastal Zone
- Nautical Charting and Marine Cartography

- Positioning Techniques for Hydrography (4, 5)
- Vertical Reference Frame (4, 5)

For more details on the technical program visit the FIG Congress website<sup>1</sup>

#### Hydrographic Technical Tour

Several Technical Tours have been scheduled ranging from Infrastructure and Cadastral Surveys to the History of Surveying in Sydney. A hydrographic tour has been scheduled for 13 April. The Australian Hydrographic Service (Royal Australian Navy) and Sydney Ports Corporation will provide delegates with a working demonstration of the latest multi-beam sonar technology including a visit to the historic Fort Denison tide gauge situated in the middle of Sydney Harbour with the best waterfront views of Sydney's icons including the Harbour Bridge, Opera House, City CBD skyline and historic buildings. Space is limited and as this tour will be open to all delegates it is anticipated that this tour will book up early.

#### Annual Commission 4 Meeting

Our annual meeting will be held at 08:00 on 12 April at The Sydney Congress and Exhibition Centre, Bayside Room 101.

#### General Assembly

At its meeting in Sydney, Australia 11 and 16 April 2010, the FIG General Assembly will elect the FIG President, 2 Vice Presidents, Chair of each of the 10 Commissions for 2011-2014, and select the venue for the FIG Congress 2014. The Council has received three nominations for the post of the FIG President: Iain Greenway (RICS, UK), Matt Higgins (SSSI, Australia) and Teo Chee Hai (AALSM, Malaysia). The Council has received also three nominations for Vice Presidents: Dalal Alnaggar (ECSM, Egypt), Chryssy Potsiou (TCG and HARSE, Greece) and Rudolf Staiger (DVW, Germany). The candidates will make their presentations at the first session of the General Assembly 11 April and voting will take place during the second session 16 April. The agenda papers for the General Assembly are now available on the web<sup>2</sup>.

#### Nominations for Chair-elect 2011-2014

According to new FIG rules and guidelines, the commission chair-elect of shall be required to serve the entire 4-year term prior to his or her term as chair. This represents a change from our previous system whereby chairs-elect were to be nominated 2-years prior to their subsequent term as chair. Members wishing to nominate the next chair for Commission 4 (for the term 2011-2014) please contact the FIG office.

*Andrew Leyzack*, Chair of FIG Commission 4

#### Web References

- <sup>1</sup> <http://www.fig.net/fig2010/techprog.htm>
- <sup>2</sup> <http://www.fig.net/admin/ga/2010/agenda.htm>

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# Canadian Institute of Geomatics

## Term of Reference of the Hydrography Committee

### Definition of Hydrography

Hydrography is that branch of applied sciences which deals with the measurement and description of the features of the seas and coastal areas for the primary purpose of navigation and all other marine purposes and activities, including – inter alia – offshore activities, research, protection of the environment, and prediction services.

### Objectives

To foster interest in hydrographic surveying within the geomatics community.

To represent and promote the best interests of hydrographic surveying in Canada and Internationally, consistent with CIG policy and objectives.

To help improve the education and professional well-being of hydrographic surveyors.

### Duties

Arrange for presentation of technical papers on hydrographic surveying at annual and special meeting of CIG and encourage the preparation of papers for publication in Geomatica.

Cooperate with CIG Branches in organizing technical seminars and symposia, and cooperate with other committee and agencies in related activities.

Represent Canadian hydrographic surveying internationally through membership in FIG Commission IV.

Encourage the development of technology and new techniques within the hydrographic surveying profession.

Report Committee activities to the CIG Council as the Technical Councillor representing the hydrographic surveying profession.

### Structure and Administration

The Committee shall be composed of a Chair and four members, with one member nominated by the Canadian Hydrographic Association, another nominated by the Canadian Hydrographic Service, and two members drawn from industry, academic institutions, or other marine government agencies.

### Appointment and Role of the Chair

The Chair shall be the CIG Technical Councillor representing hydrographic surveying or his nominee, who shall be appointed by the CIG Council after consultation with the National President of Canadian Hydrographic Association. The Chair shall be appointed for a period of three years.

The Chair shall be responsible for the conduct of the Committee and shall be consulted on the selection of its members. The Chair shall call at least one Committee meeting per year, and as many additional meetings as deemed necessary.

Committee members are to serve a term of two years and be eligible for re-election. To ensure continuity, two members shall initially serve three years and their replacements elected every two years thereafter.

Revised November 07, 2008

### Editor's Note:

The Members of this committee as follows:

Rob Haré - CHA Nominee  
Bruce Calderbank - Industry  
Paola Travaglini - CHS Nominee  
Wendy Woodford - Chair  
Susan Skone - Academia  
George McFarlane - CHA President

### A word from the Chair:

Two meetings with the new committee members were held late Dec 2009 and mid January 2010. Next meeting is scheduled for 4 March 2010. Committee is exploring ideas on how to raise the hydrographic profile within the CIG. Look for CIG representation at CHC 2010.



21-23 juin | June 21-23  
Québec, QC, CANADA  
[www.chc2010.ca](http://www.chc2010.ca)

## Rassemblement hydrographique international à Québec

MONT-JOLI - L'Association canadienne d'hydrographie est fière d'annoncer la tenue de la Conférence hydrographique du Canada 2010, du 21 au 23 juin 2010 au Centre des Congrès de Québec. Cet événement rassemblera près de 400 membres de la communauté hydrographique provenant d'une quinzaine de pays et aura pour thème général « **L'hydrographie : une science, des technologies et des gens au service du monde maritime** »

La Conférence hydrographique du Canada est un lieu d'échange exceptionnel pour discuter des plus récents développements en matière d'hydrographie, de cartographie marine et de navigation électronique et pour permettre à la clientèle de la navigation d'être aux faits des développements scientifiques et technologiques en matière d'hydrographie.

Le programme de la conférence contient des ateliers, démonstrations, conférences et une session d'affichage qui traiteront des sous-thèmes suivants :

- Acquisition des données
- Traitement des données
- Production cartographique
- Diffusion des données
- Systèmes de références horizontaux et verticaux
- Océanographie opérationnelle
- Navigation maritime moderne (e-navigation)
- Navigation en eaux arctiques
- Délimitation de la frontière maritime (UNCLOS)
- Carrière et formation
- Développement d'affaires en collaboration public, privé et académique
- Hydrographie écosystémique
- L'hydrographie appliquée à diverses disciplines
- Gestion des risques naturels

L'ouverture officielle de la Conférence, qui aura lieu 21 juin 2010 coïncide avec la Journée mondiale de l'hydrographie, décrétée par l'Organisation des Nations Unies. Cette journée permettra de faire connaître au grand public l'importance de l'hydrographie puisqu'il aura accès exceptionnellement à la conférence le lundi 21 juin.

Durant la conférence, une exposition réunissant une cinquantaine d'exposants commerciaux et institutionnels internationaux permettra aux congressistes et au grand public de découvrir les nouvelles technologies utilisées en hydrographie et en navigation électronique. D'autres activités en lien avec l'hydrographie compléteront le programme offert aux congressistes : visite du Musée naval, visite de navires hydrographiques et souper-croisière sur le fleuve Saint-Laurent.

Pour de plus amples informations concernant la conférence, visitez le site : [www.chc2010.ca](http://www.chc2010.ca)

Source :

Charline Giffard, responsable du comité relations publiques, média et publicité

Tel : 418-775-0526 Courriel : [comm@chc2010.ca](mailto:comm@chc2010.ca)

Voir l'affiche de la conférence à la page 25.





21-23 Juin | June 21-23  
Québec, QC, CANADA  
[www.chc2010.ca](http://www.chc2010.ca)

## International hydrographic gathering in the city of Québec

MONT-JOLI - The Canadian Hydrographic Association is proud to announce that the Canadian Hydrographic Conference 2010 will be held at the Convention Centre in the City of Québec. The general theme chosen for the conference, which will bring together nearly 400 participants from fifteen countries, is: **Hydrography: A science, technology and people dedicated to the maritime world.**

This international event will be an exceptional forum for discussion of the latest advancements in hydrography, marine cartography and electronic navigation and an opportunity for navigation clientele to take stock of scientific and technological developments in the field of hydrography.

The conference program features workshops, demonstrations, presentations and a poster session that will deal with the following sub-themes:

- > Data acquisition
- > Data processing
- > Chart production
- > Data dissemination
- > Horizontal and vertical datum
- > Operational oceanography
- > Modern maritime navigation (e-navigation)
- > Navigation in Arctic waters
- > Delimitation of seaward borders (UNCLOS)
- > Careers and training
- > Business development through public, private and academic cooperation
- > Ecosystemic hydrography
- > Hydrography applied to various disciplines
- > Natural hazard management

Moreover, an important event - **World Hydrography Day** - will coincide with the official opening of the conference on June 21, 2010. This day will give the general public the chance to learn more about the many facets of hydrography since the conference will, exceptionally, be open to the public on Monday, June 21.

A **trade show** will be held at the conference venue during the event. Some fifty commercial and institutional exhibitors from several countries are expected to be present. The show will give conference attendees an opportunity to become familiar with the new technologies used in hydrography and electronic navigation. Other activities will round out this week dedicated to the theme of hydrography: a tour of the Naval Museum of Québec, a visit aboard some hydrographic vessels and a dinner cruise on the St. Lawrence River.

For more information on the Conference, visit [www.chc2010.ca](http://www.chc2010.ca)

For more information, please contact:  
Charline Giffard, Public relations, media and publicity Committee  
Tel : 418-775-0526 Email : [comm@chc2010.ca](mailto:comm@chc2010.ca)

See conference poster on page 25.

# THE CANADIAN HYDROGRAPHIC ASSOCIATION AWARD LA BOURSE DE L'ASSOCIATION CANADIENNE D'HYDROGRAPHIE

(Established. 1992 / Établie en 1992)

## Deserving Student \$2,000 / 2000\$ Pour un étudiant méritant

### Application Criteria

1. The applicant must be a full time student in an accredited post secondary program in the field of Geomatics (the program must have a Hydrographic Survey or Ocean Science component) in a university or technological college anywhere in Canada. Other programs may be deemed eligible at the discretion of the Manager of this award.

2. The award will be available to undergraduate students in a degree or diploma program that conforms to the basic subject topic. The applicant will be required to submit a transcript of his/her most recent post secondary marks at the time of application. The marks must indicate an upper level standing in the class and under no condition less than 70%.

3. The award will be presented to an applicant who can demonstrate a bona fide financial need, coupled with an above average academic performance as stated above.

4. The applicant will be required to write a short paragraph explaining his/her financial need in a clear, concise manner on the application form or, if necessary, attached piece of paper. The importance of this aspect of the application is emphasized.

5. The award application will be submitted to the Canadian Hydrographic Association by June 30 each year and to the address in item 11 below.

6. The value of the award is \$2,000. There is one award only each calendar year. Only the winner will be notified.

7. The successful applicant will be issued with a special Hydrographic Association Certificate, duly framed, at the time the award is made. He/she will also receive a medallion with the Hydrographic Association Crest and have his/her name mounted on a perpetual winner's plaque. A picture of the plaque, duly inscribed will be mailed to the winner along with the \$2,000 cheque during the second week of July.

8. The applicant must submit one letter of reference from an official of the university or college where the applicant spent the previous year. This letter of reference must include the address and phone number of this official.

9. An individual student may receive the award once only.

10. The successful applicant's letter of appreciation will be published in the next issue of our professional journal "Lighthouse".

11. Application will be made on the form supplied or preferably down loaded from the official CHA web site at [www.hydrography.ca](http://www.hydrography.ca) and sent to:

### Critères d'admissibilité:

1. Le candidat ou la candidate doit être inscrit à plein temps à un programme reconnu en sciences géomatiques (ce programme doit inclure l'hydrographie ou un contenu en sciences de la mer) par une université ou un collège situé au Canada. D'autres programmes peuvent être jugés éligibles à la discrétion de l'administrateur de cette bourse.

2. La bourse s'adresse aux étudiants et étudiantes inscrits dans un programme menant à un diplôme collégial ou de premier cycle universitaire conforme aux disciplines de base. Le candidat doit soumettre une copie de son dernier relevé de notes post-secondaire avec sa demande. Les notes doivent être au-dessus de la moyenne de sa classe et être obligatoirement supérieures à 70 %.

3. La bourse sera remise au candidat ou à la candidate qui, de bonne foi, peut démontrer ses besoins financiers et qui respecte les exigences académiques mentionnées ci-haut.

4. Le candidat ou à la candidate devra écrire un court texte clair et concis, démontrant ses besoins financiers sur le formulaire de la demande ou, si nécessaire, sur une lettre jointe. Une grande importance est accordée à cet aspect de la demande.

5. La demande doit être soumise à l'Association canadienne d'hydrographie au plus tard le 30 juin de chaque année à l'adresse mentionnée à l'article 11 ci-bas.

6. La valeur de la bourse est de 2000 \$. Il n'y a qu'une seule bourse remise par année civile. Il n'y aura que le gagnant qui sera avisé.

7. Le récipiendaire recevra un certificat spécial de l'Association canadienne d'hydrographie, dûment encadré. Il ou elle recevra aussi un médaillon à l'effigie de l'Association canadienne d'hydrographie et verra son nom ajouté sur la plaque des gagnants. Une photo de la plaque, dûment gravée sera postée au gagnant avec un chèque de 2000 \$ au cours de la deuxième semaine de juillet.

8. Le candidat ou la candidate doit soumettre une lettre de référence d'un représentant de l'université ou du collège où il a suivi son cours l'année précédente. Cette lettre de référence doit inclure l'adresse et le numéro de téléphone de ce représentant.

9. Un étudiant ne peut recevoir la bourse qu'une seule fois.

10. Une lettre d'appréciation du récipiendaire sera publiée dans l'édition suivante de notre revue professionnelle - Lighthouse -.

11. La demande devra être faite en se servant du formulaire prescrit ou préférablement téléchargée à partir du site internet officiel de l'ACH - [www.hydrography.ca](http://www.hydrography.ca) - et envoyée à :

Manager / Administrateur

Canadian Hydrographic Association Award Program / Bourse de l'Association canadienne d'hydrographie

6420 Edenwood Drive, Mississauga, ON L5N 3H3

FAX / Télécopieur: (416) 512-5803 [geomac66@sympatico.ca](mailto:geomac66@sympatico.ca) [www.hydrography.ca](http://www.hydrography.ca)

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# Network of Lighthouses and Lightstations of Newfoundland and Labrador - Dedicated as National Historic Civil Engineering Site

By: Jennifer Mills, Project Engineer, Canadian Coast Guard, Newfoundland and Labrador

[Editor's Note: This article was previously presented in the September - October 2009 edition of OCEANS - a Department of Fisheries and Oceans Canada newsletter publication for employees. It appears here with the kind permission of the author and publisher. Photographs courtesy of the Canadian Coast Guard.]

Lighthouses are full of both technical functionality and architectural beauty. Built on remote sites strategically scattered around Newfoundland and Labrador's coastline, they stand tall and remind us of our rich maritime history.

During the second half of the 19th century and into the first decade of the 20th century, when Newfoundland and Labrador was still a British Colony, nearly all of its economy was dependent upon the sea. Also, at this time, international shipping lanes were crucial to the development of the Canadian economy. The growth of this marine activity and the demand for safe navigable waters led to an increased demand for lights and buoys around the coastlines of both the Colony of Newfoundland and of Canada.

In 1983, the Canadian Society for Civil Engineering established a History program. One of the principal objectives of this program is to identify civil engineering works of historic significance and to promote by such means as commemorative plaques. This is done through the National Historic Civil Engineering Sites Commemoration Program. Historic Sites commemorated by the society are classified as National, Regional or International Historic sites.

This year, the Canadian Society for Civil Engineering chose to recognize three historical sites in Newfoundland and Labrador as part of its annual conference. These sites are local examples of the significant Canadian civil engineering infrastructure projects that were completed early in the 20th century. They also demonstrate the exceptional engineering design and first-rate construction skills that existed in the province at the time.

The three sites are the Petty Harbour Hydroelectric Power Plant, the Historic Water System of St. John's and the Historic Network of Lightstations and Lighthouses in the province of Newfoundland and Labrador. Cape Spear, the location of the oldest standing lighthouse in the province, was chosen as the representative site for the lighthouse network.

On May 29, 2009, a ceremony was held at Cape Spear and the plaque was presented to the Canadian Coast Guard (CCG) Alumni Association to display as part of their Let there be Light exhibit.

Over 75 people attended the ceremony, including delegates from the National Canadian Society of Civil Engineering Conference, invited guests and the public. Alistair MacKenzie from the Canadian Society for Civil Engineering History Committee hosted the ceremony and Dave Taylor from Parks Canada provided a brief history along with some interesting facts about the lighthouses of Newfoundland and Labrador.

Guy Gosselin, president of the Canadian Society for Civil Engineering officially presented the plaque to Jane Kelsey, director, Integrated Technical Services, CCG and Jerry Duggan, president of the CCG Alumni Association.


Thanks to those who participated in the plaque presentation ceremony at Cape Spear and the success of the unveiling.



*Point Riche Lighthouse*

## Historical Facts of Lighthouses:

- Here are some interesting facts that led to the Newfoundland and Labrador lighthouse network being chosen as a Canadian Society for Civil Engineering (CSCE) National Historic Civil Engineering Site:
- In 1813, the first lightstation in Newfoundland and Labrador was constructed at Fort Amherst, at 'the Narrows', the entrance to the St. John's Harbour.
- Cape Spear Lighthouse (1836) is the most eastern lighthouse in North America and is the oldest surviving lighthouse in Newfoundland and Labrador. The site is a National Historic Site as well as a Parks Canada museum.
- At 33 metres (109 feet), the Point Amour Lighthouse (1857) is the tallest in Atlantic Canada and the second tallest in Canada. It is an exceptional structure constructed of limestone that was quarried nearby at Forteau and L'Anse au Loup and transported to site by schooner.
- Cape Race Lighthouse (1907) was the first landfall light for vessels crossing the Atlantic and contained a rare giant (5.2 metre) Fresnel lens. The area, due to the rocky shoals and harsh weather, was one of the worst places in the world for shipwrecks. On a clear day, the original light (acetylene gas lamps) could be seen from a distance of 19 miles, making it the most powerful light built up to that time.
- The distinctive utilitarian design of the cast iron lighthouses found in Newfoundland and Labrador (such as the Bull Head and Heart's Content Lighthouses) are unique within Canada.
- The original light in the Cape Bonavista Lighthouse (1843) was formerly used in the famous Belle Rock lighthouse on the coast of Scotland. The original mechanism used with this light consisted of 16 Argand lamps. The light showed one revolving white light with a flash every half minute. Today, the Cape Bonavista lighthouse is a Provincial Historical Site and museum.
- Recognizing the need to mark the northern entrance to the St. Lawrence and the Strait of Belle Isle, 10 lightstations were erected by the Canadian Board of Works on the northern part of Newfoundland and in Labrador despite the fact that, at that time, Newfoundland and Labrador was a distinct colony.
- Construction of these stations was no minor feat. Most were installed in remote, inhospitable locations, long before modern construction conveniences were available. In many cases oxen, horses, and manpower were all used to transport the material to the site. The Belle Isle Lighthouse, at 137 metres (450 feet) above sea level, presented the most challenging construction effort ever undertaken by the Canadian Board of Works in the mid 1850s.

Over 100 years later, many of these structures are still standing and are operational as part of the Canadian Coast Guard's system of Navigational Aids. 



*Point Amour Lighthouse (July 2005)*



*Ferryland Head Lighthouse (May 2007)*



*Lobster Cove Head Lighthouse (September 2004)*

*Celebrate...*

World Hydrography Day - June 21<sup>st</sup>

The United Nations, in its General Assembly Resolution A/60/30 of 29 November 2005, "Welcomes the adoption by the International Hydrographic Organization of the "World Hydrography Day", to be celebrated annually on June 21st, with the aim of giving suitable publicity to its work at all levels and of increasing the coverage of hydrographic information on a global basis, and urges all States to work with that organization to promote safe navigation, especially in the areas of international navigation, ports and and where there are vulnerable or protected marine areas."

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E-mail: aak@cctechnol.com  
Website: www.cctechnol.com  
(affiliation - CHA Central Branch)

## **Highland GeoSolutions**

45 Highland Heights,  
Taymouth, New Brunswick, E6C 1Y2, Canada  
Contact: Graham Nickerson  
Tel: (902) 482-4469 FAX: 1-866-605-5173  
E-mail: gnicker@highlandgeo.ca  
Website: www.highlandgeo.ca  
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## CORPORATE MEMBERS / MEMBRES CORPORATIFS

### **HSA Systems Limited**

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### **Knudsen Engineering Ltd.**

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### **HYPACK, Inc.**

55 Bradley St., Middletown, CT, 06457, USA  
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### **Kongsberg Maritime**

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E-mail: john.gillis@kongsberg.com  
Website: www.km.kongsberg.com  
(affiliation - CHA Central Branch)

### **Interactive Visualization Systems (IVS 3D)**

325 Corporate Drive, Suite 175  
Portsmouth, NH, 03801, USA  
Contact: cmahoney@ivs3d.com  
Tel: (603) 431-1773 FAX: (603) 766-0485  
E-mail: info@ivs3d.com  
Website: www.ivs3d.com  
(affiliation - CHA Atlantic Branch)

### **L-3 Communications Klein Associates Inc.**

11 Klein Drive, Salem, NH, 03079, USA  
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### **IXSEA Inc.**

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### **Mackay Mackay & Peters Limited**

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### **Jeppesen Norway AS**

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### **McQuest Marine Sciences Ltd**

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Website: www.mcquestmarine.com  
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# CORPORATE MEMBERS / MEMBRES CORPORATIFS

## **NAIT (Northern Alberta Institute of Technology)**

Civil and Geomatics Engineering Technologies  
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## **RESON Inc.**

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## **NetSurvey Ltd.**

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E-mail: duncan@netsurvey.co.uk  
Website: www.netsurvey.co.uk  
(affiliation - CHA Central Branch)

## **Sani-International Technology Advisors Inc.**

3075 14th Avenue, Suite 224  
Markham, ON, L3R 0G9, Canada  
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Tel: (905) 943-7774 FAX: (905) 943-7775  
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## **ODIM Brooke Ocean**

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Website: www.brooke-ocean.com  
(affiliation - CHA Atlantic Branch)

## **Terra Remote Sensing Inc.**

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Contact: Dave Neufeldt  
Tel: (250) 656-0931 / 800-814-4212 FAX: (250) 656-4604  
E-mail: dave.neufeldt@terraremove.com  
Website: www.terraremove.com  
(affiliation - CHA Pacific Branch)

## **Odom Hydrographic Systems Inc.**

1450 Seaboard Ave  
Baton Rouge, LA, 70810, USA  
Contact: Richard Easson, Sales Director  
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E-mail: email@odomhydrographic.com  
Website: www.odomhydrographic.com  
(affiliation - CHA Central Branch)

## **Your Company Here**

Consider becoming a CHA Corporate Member.  
Your organizations contact information would be posted here  
for all to see as a CHA Corporate Member.  
See the Corporate Members section for additional benefits.  
Contact *Lighthouse* at the address listed in this journal or at  
www.hydrography.ca



We invite your organization to become a corporate member in our association. Consider the following benefits:

- **Receive three copies of each issue of *Lighthouse* (published twice annually).**
- **An invitation to participate in CHA seminars.**
- **Listing and recognition in every edition of *Lighthouse*.**
- **An annual 250 word description of your organization in *Lighthouse*.**
- **10% off advertising rates in *Lighthouse*.**
- **10% off exhibitor fees at CHA sponsored events.**
- **Listing and link to your home page on each CHA Branch Web site.**
- **News from corporate members in every edition of *Lighthouse*.**

The CHA, through *Lighthouse*, is active in promoting the strength and diversity of organizations and companies that support the hydrographic and related communities. Get onboard with us as a corporate member and we will help you reach potential customers throughout our worldwide distribution.

To join, please contact one of the Directors as listed on page 2. International applicants please remit to Central Branch. To obtain an application visit us at [www.hydrography.ca](http://www.hydrography.ca)

Annual dues for CHA Corporate Membership is \$150.00 (CDN).

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### ASI Group Ltd

ASI Group provides a complete range of hydrographic, geophysical and visual inspection techniques to conduct underwater investigations. Lake bottom surface features and targets are located, measured and mapped with precision accuracy in real-time using a combination of geophysical mapping and charting tools. In-house cartographers and graphic specialists interpret geophysical data to produce quality technical reports in hardcopy and GIS compatible formats.

ASI's survey vessels are trailerable and equipped with a wide variety of survey equipment packages. In addition to surface vessels, ASI owns and operates a fleet of purpose-built remotely operated vehicles (ROVs) to deploy sonar and video imaging in open water, tunnels and pipelines.

ASI provides greater efficiency and accuracy in mapping rivers, estuaries, channels, lakes or harbour bottom surfaces for:

- Geological investigations
- Habitat mapping and archaeological surveys
- Underwater search, survey and recovery
- Dredging surveys and volumetric determination
- Sonar profiling/imaging surveys
- Remotely operated vehicle inspections
- Integrated navigation and positioning services
- Cable and pipeline inspections.

For further information please contact:

ASI Group Ltd  
Tel: (905) 641-0941 Fax: (905) 641-1825 Website: [www.asi-group.com](http://www.asi-group.com)

# Corporate Members

## Membres corporatifs

### Association of Canada Lands Surveyors Association des Arpenteurs des Terres du Canada

The ACLS is a national self-regulating professional association. It has 560 members located across Canada (and the world), who have expertise in surveying, photogrammetry, remote sensing, geodesy, hydrography and land information systems.

The ACLS is committed to raising awareness of the responsibilities and concerns of respective stakeholders in offshore Canada lands, and to find a common strategy to move this industry sector forward for the betterment of all. The following is a short list of the current main thrusts:

- Promotion of a Marine Cadastre for Canada
- Promotion of the ACLS national certification program for hydrographers
- Publication and promotion of the new book entitled "Canada's Offshore: Jurisdiction, Rights, and Management". Copies can be purchased from: [www.acls-aatc.ca](http://www.acls-aatc.ca) or [www.trafford.com](http://www.trafford.com)

L'A.A.T.C. est une association professionnelle de juridiction fédérale. Elle est composée de 560 membres répartis aux quatre coins du Canada (et du monde) qui ont une expertise en arpentage, en photogrammétrie, en télédétection, en géodésie, en hydrographie et en systèmes d'information foncière à référence spatiale.

L'A.A.T.C. est engagée à l'amélioration de la sensibilisation aux responsabilités et aux préoccupations des intervenants respectifs des terres extracôtières du Canada et de l'adoption d'une stratégie commune pour faire progresser ce secteur de l'industrie en vue de la plus-value pour tous. Voici la liste des activités principales en cours :

- Promotion d'un cadastre marin pour le Canada.
- Promotion du programme national de certification des hydrographes de l'AATC.
- La publication et la promotion du nouveau livre : *Zone extracôtière canadienne : juridiction, droits et gestion*. La version française sera disponible en novembre 2007. Vous pouvez faire l'acquisition de copies en visitant : [www.acls-aatc.ca](http://www.acls-aatc.ca) ou [www.trafford.com](http://www.trafford.com)

For further information please contact:

Association of Canada Lands Surveyors  
Tel: (613) 723-9200 FAX: (613) 723-5558 E-mail: [admin@acls-aatc.ca](mailto:admin@acls-aatc.ca)  
Website: [www.acls-aatc.ca](http://www.acls-aatc.ca)

### C & C Technologies

C & C Technologies (C & C), an international hydrographic surveying company, headquartered in Lafayette, Louisiana, has approximately 400 employees and seven offices worldwide.

As of January 2003, eighty percent of C & C's revenues were derived from survey work for the oil and gas industry and the other twenty percent are derived from US government contracts. The oil industry work includes high-resolution marine geophysics for hazard studies and pipeline route surveys, rig and barge positioning, acoustic positioning for ROVs, as well as satellite navigation services. The company has separate offshore oil industry survey departments for geophysical work, marine construction, and navigation.

C & C Technologies has performed hydrographic survey work for various Government groups including NOAA, the US Geological Survey, and the Corps of Engineers. In 1994, C & C was contracted by the U.S. Naval Research

Labs to perform research and development work on semi-submersible autonomous underwater vehicles (AUV's) for hydrographic surveying purposes. In January 2000, C & C and Kongsberg Simrad began working on C & C's new commercial AUV rated for water depths up to 4500 meters. The AUV's sensor payload included multibeam swath high resolution bathymetry and imagery, chirp side-scan sonar and sub-bottom profiler, differential GPS integrated with acoustic / inertial navigation and acoustic communications. Since delivery in January 2001, C & C's AUV has completed over 100,000 kilometres of survey lines for a variety of worldwide clients.

Additional services offered by C & C include: C-Nav™, the highest accuracy worldwide Ge-GPS differential correction service available, in-house state-of-the-art soil analysis lab, and 3 D hazard assessment reporting for MMS deep water site clearances.

For more information regarding C & C Technologies services please contact:

Mr. Mike Dupuis, Mr. Jeff Fortenberry, Mr. Art Kleiner, or Mr. Frank Lipari  
at (337) 261-0660 email to [info@cctechnol.com](mailto:info@cctechnol.com) or  
visit C & C's Website at [www.cctechnol.com](http://www.cctechnol.com)

### Canadian Seabed Research Ltd

Canadian Seabed Research Ltd. (CSR) is an established company of geophysicists, hydrographic surveyors, and geologists. We operate worldwide, conducting hydrographic and geophysical surveys for a wide range of applications including charting, offshore petroleum, port engineering and marine environmental applications.

Our team of professionals provide a complete marine survey solution that includes positioning, hydrographic surveying, seafloor imaging, subbottom profiling, geotechnical analysis, comprehensive reporting and mapping.

Established in 1985, CSR has developed a solid reputation for achieving the highest quality results. This is based on careful project planning, the use of innovative equipment, and the unique experience our professional team brings to project interpretation and reporting.

CSR's suite of geophysical systems enable us to offer a wide variety of services to our clients. Our multiple profiling systems are used to accurately map depth to bedrock and surficial sediments. Sidescan sonar technology allows us to achieve high resolution seabed imagery for geohazard detection. Our single and multibeam surveys achieve the highest quality bathymetric data for hydrographic and engineering applications.

CSR has conducted surveys throughout Canada and the United States, Beaufort Sea, Russia, South America, North Sea and the High Arctic. Our survey solutions are innovative and based on a thorough understanding of marine geologic and geophysical principles.

Our future will continue to be based on excellence and creative innovation in the earth sciences.

For further information please contact:

Canadian Seabed Research Ltd  
Tel: (902) 827-4200 FAX: (902) 827-2002 E-mail: [info@csr-marine.com](mailto:info@csr-marine.com)  
Website: [www.csr-marine.com](http://www.csr-marine.com)

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### Fugro Jacques GeoSurveys Inc.

Fugro Jacques GeoSurveys Inc. (FJGI) is a Canadian established company owned by Fugro NV and the Jacques Whitford Group. FJGI has offices in St. John's NL and in Dartmouth, NS and has one the largest private sector suites of hydrographic, geophysical, geotechnical and positioning equipment in Canada. With approximately 85 employees, FJGI has established an impressive track record in Canada and on the international stage.

FJGI has provided seabed mapping and construction support services for all of Eastern Canada's offshore oil and gas developments and is also actively involved in marine based non-oil and gas projects such as Canada's UNCLOS mapping, hydrographic charting in Canada's North, large area habitat mapping, pipeline and cable route surveys, ice scour studies, wharf investigations and a broad range of engineering and construction support surveys.

FJGI's Hydrographic Group operates a wide range of multibeam systems such as Reson 8101, 8111 and 8125

systems. These systems are routinely mobilized by FJGI on ocean going vessels, as well as our customized 26 foot inshore survey launch. Systems have also been mobilized on ROVs for detailed infield mapping.

Multibeam data are processed in the field and at base in St. John's and Dartmouth using CARIS HIPS/SIPS, IVS' Fledermaus visualization tools, and Fugro's own Starfix software suite. The resultant multibeam data are commonly integrated with seabed sampling, underwater imagery, geotechnical, seismic, sidescan and sub-bottom profiler data to deliver superior data products for use in seafloor and sub-seafloor assessments.

Throughout each project, FJGI is committed to the health and safety of its employees, partners and clients, and to the protection of the environment. This is accomplished through the Company's comprehensive HSE policy and Safety Management System which is OHSAS 18001 certified.

If you would like to receive further information about Fugro Jacques GeoSurveys Inc. please contact:

Fugro Jacques GeoSurveys Inc.  
Tel: (709) 726-4252 FAX: (709) 726-5007 E-mail: [toddralph@fjg.ca](mailto:toddralph@fjg.ca)  
Website: [www.fugro.com](http://www.fugro.com)



# U.S. HYDRO 2011

April 25-28, 2011 • Marriott Waterside Hotel • Tampa, Florida USA

The Hydrographic Society of America (THSOA) will organize and host the 2011 U.S. Hydrographic Conference.

U.S. Hydro 2011 will offer participants:

- Hydrographic Workshops
- Technical Program
- Commercial Exhibits
- On Water Demonstrations
- Social Events

With plenty of water, sand and sunshine, Tampa is a Florida west coast community with an inherent Southern charm. The conference will be held at the Tampa Marriott Waterside Hotel, a luxury waterfront hotel and marina situated along the Channel Riverwalk overlooking Tampa Bay in the heart of Downtown.



For more information, please visit the THSOA website  
[www.thsoa.org](http://www.thsoa.org)

*Bienvenue! Welcome! Koey!*

Conférence Canadian  
hydrographique Hydrographic  
du Canada Conference

21-23 juin | June 21-23

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Québec, Québec, CANADA  
City of Québec, Quebec, CANADA



Association canadienne d'hydrographie  
Canadian Hydrographic Association

[www.chc2010.ca](http://www.chc2010.ca)

Fin de l'inscription hâtive et date limite pour annulation sans frais : **21 avril 2010**  
End of early registration period and deadline for cancellation with full refund : **April 21, 2010**

# Corporate Members

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## Membres corporatifs

### **HYPACK, Inc.**

HYPACK, Inc develops Windows-based software for the hydrographic and dredging industry. Founded in 1984, HYPACK, inc. (formerly Coastal Oceanographics, inc.) has evolved from a small hydrographic consultancy to one of the most successful worldwide providers of hydrographic and navigation software. HYPACK® is one of the most widely used hydrographic surveying packages in the world, with over 4,000 users. It provides the surveyor with all of the tools needed to design their survey, collect data, process it, reduce it, and generate final products.

Whether you are collecting hydrographic survey data or environmental data or just positioning your vessel in an engineering project, HYPACK® provides the tools needed to complete your job. With users spanning the range from small vessel surveys with just a GPS and single beam echosounder to large survey ships with networked sensors and systems, HYPACK® gives you the power needed to complete your task in a system your surveyors can master.

For more information regarding HYPACK, Inc. please contact:

HYPACK, Inc.  
Tel: 1-860-635-1500    FAX: 1-860-635-1522    E-mail: [sales@hypack.com](mailto:sales@hypack.com)  
Website: [www.hypack.com](http://www.hypack.com)

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### **Interactive Visualization Systems (IVS 3D)**

Interactive Visualization Systems (IVS 3D) with its world class, scientific 3D visualization and analysis software, Fledermaus, provides innovative, interactive and client-driven solutions and knowledge for surveying, mapping and research. Fledermaus presents intuitive insight into massive geographic data sets of numerous data types promoting professional interaction and collaboration.

Fledermaus has been developed to allow our clients to explore, analyze, manipulate and gain knowledge from their data by representing very large complex information in the best possible way - in an intuitive fashion - in the way that we perceive the real world everyday. This virtual reality allows new insight to be rapidly gained and more information to be extracted from the underlying data. This results in Fledermaus providing our clients with added

value in efficiency, accuracy, completeness, integration, and communication.

IVS 3D has a dynamic and creative team of professionals that are committed to advancing visualization technology; and dedicated to unveiling opportunities to develop and improve visualization and interpretation software in ways that will provide our clients with first-rate software tools to ensure success of their business or research endeavours.

IVS 3D is headquartered in Fredericton, New Brunswick, Canada with an office in Portsmouth, New Hampshire. Both offices provide full support, worldwide in association with a number of alliance partners.

If you would like to receive further information about IVS 3D and its services please contact:

Interactive Visualization Systems (IVS 3D)  
Tel: (603) 431-1773    FAX: (603) 766-0485    E-mail: [info@ivs3d.com](mailto:info@ivs3d.com)  
Website: [www.ivs3d.com](http://www.ivs3d.com)

### Jeppesen Norway AS

Through Jeppesen's aviation heritage, the company has over 70 years of valuable experience working with complex data, enhancing, assembling and packaging that data to meet the needs of its customers. Jeppesen has long believed in the value and importance of strategic partnerships with industry groups and source providers, and we carry those beliefs forward with us into the marine industry.

Based upon Jeppesen Marine's relationships with hydrographic offices around the world, we share a common goal of providing superior data solutions to mariners, whether they are on the high seas, coastal or inland waterways. Jeppesen Marine also shares a common bond in improving waterway safety, increasing customer efficiency, and ensuring environmental protection.

Coupled with the acquisition of C-Map and HydroService AS, Jeppesen Marine utilizes a range of data types including vector and raster navigation charts and other digital

products. By applying advanced technologies, Jeppesen Marine increases the usefulness, availability and timeliness of hydrographic data, tightly packaging that information into systems and tools that anticipate and meet customer needs.

Customers count on Jeppesen Marine to provide them with the most innovative, reliable navigational tools and data solutions for their commercial or maritime needs. Services include: Cartography services, dKart office tools and services, CM-93 data services and OEM toolkits, CM-ENC toolkit, and 24/7 customer support.

Jeppesen Marine values the unique contributions of hydrographic offices and other data providers and looks forward to continuing to build strategic alliances in the spirit of working together to advance the interests and welfare of mariners around the world.

For further information please contact:

Egil O. Aarstad  
Tel: +47 51 464960 FAX: +47 51 464701 E-mail: [info@hydroservice.no](mailto:info@hydroservice.no)  
Website: [www.hydroservice.no](http://www.hydroservice.no)

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### Kongsberg Maritime

Kongsberg Maritime, a company in the Kongsberg Group, is a leading supplier of advanced multibeam and single beam echosounders and instrumentation systems.

With its strong application knowledge and trend-setting quality products, Kongsberg Maritime is able to offer unique and complete solutions for ROVs, AUVs, positioning systems and sea bed surveying and mapping.

Kongsberg Maritime has about 980 employees with subsidiaries world wide. Canadian operations include a sales office in Halifax and a factory in Port Coquitlam, British Columbia. The headquarters are located in Kongsberg, Norway. Kongsberg Maritime exports its products to all of the world's major markets.

For more information regarding Kongsberg Maritime please contact:

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or visit Offshore: [www.km.kongsberg.com](http://www.km.kongsberg.com) and Marine: [www.simrad.no](http://www.simrad.no)

# Corporate Members

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## Membres corporatifs

### NetSurvey Limited

NetSurvey is one of the leading multibeam service solution providers worldwide. We provide a specialist service to survey companies, ports and harbor authorities and research and government organizations. We are at the forefront of multibeam technology, combining the latest equipment and software to give unrivalled results in new and complex areas, such as ROV based surveys, fisheries habitat mapping, detailed wreck investigation and many others.

We can supply any portable multibeam system suitable for vessel, ROV or AUV deployment and all ancillary sensors installed, operated and processed by a team of highly trained multibeam surveyors and engineers. Our specialist personnel are also available to supplement your offshore teams or to act as client representatives.

We offer an in-house data processing service that can range from simple swath bathymetry cleaning to full 3D

Visualization and fly-through using Fledermaus software. NetSurvey also offers bespoke training courses with a practical emphasis.

All of our surveyors/engineers are trained-up on Reson, ELAC, Simrad and GeoAcoustics multibeam systems; Applanix, TSS, Kongsberg-Seatex and CODAOctopus motion sensors; QPS, Eiva, CARIS HIPS/SIPS and Fledermaus software.

With our large equipment pool available for hire and some of the most experienced multibeam specialist personnel, NetSurvey can provide you with peace of mind and the complete multibeam solution at a very competitive rate.

If you would like to receive further information about NetSurvey and its services contact Duncan Mallace or visit [www.netsurvey.co.uk](http://www.netsurvey.co.uk)

If you would like to receive further information about NetSurvey and its services please contact:

Mr. Duncan Mallace  
Tel: +44 1295 750 600    FAX: +44 1295 750 700    E-mail: [duncan@netsurvey.co.uk](mailto:duncan@netsurvey.co.uk)  
Website: [www.netsurvey.co.uk](http://www.netsurvey.co.uk)

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### ODIM Brooke Ocean

ODIM Brooke Ocean, Dartmouth, Nova Scotia, is a world leader in the development and supply of sensor platforms for moored and underway use. The company provides hardware, engineering, repair and overhaul, life cycle support and R&D services to the hydrographic and oceanographic communities as well as to the naval and oil & gas sectors. Products include advanced data collection platforms, instrumentation, cable-handling hardware and launch/recovery systems.

ODIM Brooke Ocean's Moving Vessel Profiler™ (MVP) collects real-time free fall data profiles from ships underway at speeds of up to 12 knots. In addition, the ODIM Free Fall Cone Penetrometer (FFCPT) was developed to collect geotechnical and geophysical data during route location surveys for seabed cable and pipeline installations, bottom classification and acoustic groundtruthing, mine countermeasures and geo-environmental studies.

The ODIM FFCPT can be used either on-station or from a vessel underway at speeds up to 6 knots, using an ODIM MVP. Deployment of the ODIM FFCPT from an ODIM MVP offers a rapid and reliable method for characterizing the seafloor sediment, as well as the sound velocity of the water column.

Another of ODIM Brooke Ocean's primary areas of specialization is in the development of shipboard Launch And Recovery Systems (LARS) to deploy and recover various payloads from a ship at sea. These payloads include Autonomous Underwater Vehicles (AUVs), Unmanned Surface Vehicles (USVs), offboard sensors, oceanographic equipment, and manned submersibles.

If you would like to receive further information about ODIM Brooke Ocean and its services please contact:

Derrick Peyton  
Tel: (902) 468-2928    FAX: (902) 468-1388    E-mail: [sales@brooke-ocean.com](mailto:sales@brooke-ocean.com)  
Website: [www.brooke-ocean.com](http://www.brooke-ocean.com)



# Corporate Members

## Membres corporatifs

### RESON Inc.

Established in 1976, RESON has grown steadily and is now one of the world's leading companies in the field of underwater acoustics and high-power ultrasonics. In addition, RESON is the leading company in the design, manufacture, delivery, and support of integrated multibeam echo sounder systems. RESON also designs and manufactures specialty Transducers, Hydrophones, and complete Sonar Systems.

RESON is an international corporation with offices in Denmark, Scotland, Germany, South Africa, Singapore, the Netherlands, Italy and the United States.

We have assembled a team of highly skilled engineers committed to advanced engineering and to the design of sonar and acoustic systems. In addition, RESON employs a team of more than one hundred professionals dedicated to such disciplines as Program Management, Quality Assurance, Manufacturing, Software Development, Security, and Administration. The resulting corporation, RESON, is renowned for providing innovative solutions to complex underwater surveying and military problems.

For further information please contact:

RESON Inc.  
Tel: (805) 964-6260 FAX: (805) 964-7537 E-mail: sales@reson.com  
Website: [www.reson.com](http://www.reson.com)

To date, RESON has delivered over 700 multibeam systems, more than all our competitors combined.

In summary, RESON is involved in the following application areas:

- Seafloor Mapping and Inspection
- Offshore and Construction
- Acoustic Calibration
- Acoustic Test Range
- Surveillance and Security
- Mine Counter Measures, MCM
- Anti-Submarine Warfare, ASW
- Systems Performance Modeling
- High-Speed Signal Processing Hardware and Software
- Image Processing.

### SANI-INTERNATIONAL TECHNOLOGY ADVISORS INC. (SANI-ITA)

SANI-INTERNATIONAL TECHNOLOGY ADVISORS INC. (SANI-ITA), an Ontario Corporation, provides services and consulting in geographic information systems, remote sensing, softcopy photogrammetry and hydrography. The Corporation is a Distributor for GeoEye (IKONOS and OrbView imagery) Lizardtech (MrSID GeoExpress and DocumentExpress) and Nuvision (softcopy photogrammetry hardware) and is also the Authorised Training Centre in Canada for the complete suite of ERDAS IMAGINE software products running on SUN Solaris (UNIX) and Microsoft Windows platforms. SANI-ITA is a sister company to Spatial Geo-Link Limited, the exclusive distributor in Canada for Leica Geosystems softcopy photogrammetry and geographic imaging products.

SANI-ITA is ISO 9001:2000 registered, ISO 9001:2000 (the most comprehensive of the ISO 9000 series of standards for quality assurance developed by the International Organisation for Standardisation) encompasses all aspects of quality management inclusive of understanding customer requirements, design control and development and consulting services.

For additional information on the Corporation, please visit our website at:

[www.sani-ita.com](http://www.sani-ita.com)  
or contact us at  
Tel: (905) 943-7774 FAX: (905) 943-7775

Services offered by SANI-ITA include:

- Project Consulting and Project Management
- Airborne and spaceborne data acquisitions
- Control surveys
- Hydrographic surveys
- Aerial triangulation and orthorectification of airborne data (metric, digital or video cameras) and satellite sensors (SPOT, IRS-1C, IKONOS, ASTER, QuickBird, EROS1A, OrbView SPOT5, THEOS1, FORMOSAT2 and Landsat)
- Digital Elevation/Terrain collection – automatic or static mode
- Orthomagery production
- Digital topographic mapping and map and chart revision
- GIS data structuring
- Map conversion and data translation services
- Image compression services (lossy and lossless)
- Third party audits of mapping and image data
- Visualisation services including dynamic fly-throughs and stereoscopic viewing

## Corporate Members

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### Membres corporatifs

#### **Terra Remote Sensing Inc. (TRSI)**

Terra Remote Sensing Inc. (TRSI) is a spatial data organization offering world-class expertise and technology for clients requiring fast, accurate, detailed and cost effective surveys. Our teams specialize in the acquisition and positioning of remotely sensed data in terrestrial and marine environments, and in the transformation of that data into a wide array of products to meet our client's needs.

TRSI was established in 1983 in Sidney, British Columbia as the West Coast subsidiary of Terra Surveys Ltd, based in Ottawa Canada. The company began by providing consulting, engineering, training and technical services in coastal and land-based resource studies, hydrography, marine geophysics and remote sensing. TRSI, a 100% employee-owned venture, was launched in 1999 to allow the company to further develop its technology and processes. Our new sensor technologies and associated applications are testaments to our innovation approach.

TRSI has over 50 dedicated full-time professionals that work on both national and international projects. Senior management is comprised of a core group of professional engineers and business specialists.

A highly qualified permanent staff of Geomatic Engineers, GIS Specialists, Mapping Technicians, Computer Programmers, Electronic Engineers, Hydrographers, Geophysicists and Surveyors comprise TRSI's multi-disciplinary team.

TRSI established a wholly owned subsidiary in Chile in late 2008. The Chile operation maintains a commercial office in Santiago and an operational office located in Carauma near Valpariso, in order to provide access to qualified staff.

Our wholly-owned US entity was established in 2009 as a sales office to provide a US base for our clients. Their focus is the Pacific Northwest region, which is a natural extension from our Sidney head office.

For more information regarding Terra Remote Sensing please contact:

Dave Neufeldt

Tel: (250) 656-0931 / (800) 814-4212 FAX: (250) 656-4604 E-mail: [dave.neufeldt@terraremove.com](mailto:dave.neufeldt@terraremove.com)  
Website: [www.terraremove.com](http://www.terraremove.com)



### News from ACLS

#### David Thompson National Geomatics Awards

The next awards will be presented at the Gala Diner at the end of the National Surveyors on May 8<sup>th</sup>, 2010 in St. John's, Newfoundland. This awards program is open to all commissioned surveyors who are members of a Canadian surveying association. The categories are:

- Innovation in Geomatics
- Contribution to Society
- Unusual Applications in Geomatics

The deadline for submissions for this year's awards is March 8<sup>th</sup>, 2010. For more details and registration form, go to: [www.acls-aatc.ca/en/node/27](http://www.acls-aatc.ca/en/node/27)

#### Upcoming National Surveyors Conferences

The sixth National Surveyors Conference will be held from May 6<sup>th</sup> to 8<sup>th</sup>, 2010 at the Sheraton Hotel Newfoundland in St. John's, Newfoundland. The ACLS will celebrate its 25<sup>th</sup> anniversary and it will be held in conjunction with the Association of Newfoundland Land Surveyors Annual General Meeting. The preliminary program is as follows:

- The following seminars on May 6<sup>th</sup>:
  - The Surveyor and Electronic Plan Submission
  - Coastal and Offshore Boundary Delimitation
- Joint ACLS-ANLS Workshop on Common Issues and Poker Tournament on May 7<sup>th</sup>.
- ACLS and ANLS Business Meetings and Gala Diner with presentation of the David Thompson National Geomatics Awards on May 8<sup>th</sup>.
- Exhibit will be open from May 6<sup>th</sup> to 8<sup>th</sup>.

All National Surveyors Conferences are open to all surveyors and students.

#### New CLSs

At the October 2009 exam sitting, four individuals have completed their CLS professional exams so we are glad to announce that CLS Commissions were awarded to the following candidates:

- Dagen Deslauriers of Sherwood Park, Alberta
- Nicholas Ronsko of Canmore, Alberta
- Scott Colvin of Swift Current, Saskatchewan and
- Cameron Twa of Yellowknife, Northwest Territories

Congratulations to all.

Jean-Claude Tétreault, CLS, a.-g., P. Eng., MBA  
Executive Director

# News From Corporate Members

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## Nouvelles de Membres corporatifs



### Nouvelles de ACLS

#### Prix nationaux en géomatique David Thompson

Les prochains prix seront présentés lors de la soirée gala de la Conférence nationale des arpenteurs-géomètres le 8 mai 2010 à St. John's, Terre-Neuve. Ce programme est ouvert à tous les arpenteurs-géomètres brevetés qui sont membres d'une association (ou ordre) professionnel d'arpentage canadien. Voici les catégories :

- Innovation en géomatique
- Apport la société
- Applications inhabituelles en matière de géomatique

La date limite de mise en candidature pour les prix de cette année est le 8 mars 2010. Pour obtenir plus de détails ainsi que le formulaire d'inscription, veuillez consulter :

[www.acls-aatc.ca/fr/node/159](http://www.acls-aatc.ca/fr/node/159)

#### Conférences nationales des arpenteurs-géomètres à venir

La sixième conférence nationale des arpenteurs-géomètres aura lieu du 6 au 8 mai 2010 à l'hôtel Sheraton Newfoundland à St. John's, Terre-Neuve. L'A.A.T.C. fêtera ses 25 ans et la conférence aura lieu de manière conjointe avec l'A.G.A. de l'Association of Newfoundland Land Surveyors Voici le programme préliminaire :

- Les séminaires du 6 mai :
  - L'arpenteur-géomètre et la soumission électronique de plans.
  - La délimitation de limites sur les côtes et en mer.
- Atelier conjoint A.A.T.C.-A.N.L.S. sur des sujets communs et tournoi de poker le 7 mai.
- Les assemblées générales annuelles de l'A.A.T.C. et A.N.L.S, soirée gala et remise des prix nationaux en géomatique David Thompson le 8 mai.
- L'exposition sera ouverte du 6 au 8 mai.

Toutes les conférences nationales des arpenteurs-géomètres sont ouvertes à tous les arpenteurs et aux étudiants.

#### Nouveaux ATCs

Lors de la séance d'examens d'octobre dernier, quatre (4) individus ont complété leurs examens professionnels d'a.t.c. Alors nous sommes heureux d'annoncer que des brevets d'a.t.c. ont été accordés aux personnes suivantes:

- Dagen Deslauriers de Sherwood Park, Alberta
- Nicholas Ronsko de Canmore, Alberta
- Scott Colvin de Swift Current, Saskatchewan et
- Cameron Twa de Yellowknife, Territoires-du-Nord-Ouest

Félicitations.

Jean-Claude Tétreault, ATC, a.-g., ing., MBA  
Directeur exécutif



### **IVS 3D Expands EMEA Sales Support for Fledermaus**

Christian Relling Hired as EMEA Regional Manager to the IVS Sales Team

Oxfordshire, United Kingdom, November 2009 - IVS 3D has appointed Christian Relling to the Sales Team as the EMEA Regional Sales Manager and will be based out of the United Kingdom office.

He joins IVS 3D from SevenCs GmbH where he was the Head of Sales and Marketing. His experience managing OEM partnerships, relationships with Hydrographic Offices, and coordinating marketing activities will help IVS 3D to expand EMEA sales of their hydrographic software, the Fledermaus suite.

"I have known and respected the reputation of the Fledermaus software suite for quite some time, and am thrilled to be part of the goal of being a market leader," said Mr. Relling, "Because of IVS 3D's direct lines of communication, decision-making is faster, more efficient and allows us to anticipate client needs and remain on the cutting edge of visualization technology. With direct links to all levels of company, issues can be resolved in minutes, not weeks."

Duncan Mallace, EMEA Regional Director for IVS 3D, stated, "I am very pleased to have Christian on board. His wealth of experience compliments our existing resources and enables us to continue to respond quickly and personally to client requests throughout the EMEA region. Christian's role is a key part in our goal to lead the market in visualization innovation, processing efficiency and analysis with the Fledermaus software."

The Fledermaus software stands apart in providing scientists and engineers with interactive and intuitive tools for processing, quality control and analysis of multibeam sonar and related data. Its use significantly improves efficiencies in areas such as; nautical charting, geologic interpretation, the assessment of seabed habitats, planning routes for pipelines and cables, and the identification of geohazards during engineering development.

If you would like more information on this topic, or to schedule an interview, please contact

Carole Mahoney at 207-636-7887 or via email: [carole@minternetmarketing.com](mailto:carole@minternetmarketing.com)



### **Upcoming Fledermaus Tools and Functionality Featured at AGU**

Latest in Mid-Water Visualization and ESRI Integration Demonstrated

Portsmouth, NH, January 2010- For the 10th consecutive year, IVS 3D exhibited at the annual AGU meeting in San Francisco, CA from December 14-18. With over 16,000 geophysicists from around the world, the meeting was a successful collaboration of the latest issues and technology surrounding Earth and space sciences.

At the IVS 3D booth, many attendees saw demonstrations of Fledermaus Version 7 and were excited to learn about the latest integrations with ESRI. As data sets were discussed and shared, many realized the improved workflow with the ESRI Arc integration in eliminating the need to export or import between the two platforms. Particular interest and discussions surrounded the Fledermaus mid-water visualization tools soon to be released. The majority of attendees were interested in plume visualization for various systems and data set formats.

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# News From Corporate Members

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## Nouvelles de Membres corporatifs

Elsewhere in presentations and posters, Fledermaus images and models were evident in numerous displays.

Moe Doucet, Chief Systems Architect for IVS 3D, reflected on the response and feedback from the meeting. "This type of direct interaction with our users is crucial in our development process. We came away with insights into workflow challenges that will help our team to continue to develop innovative solutions within the Fledermaus software suites. The analysis of plumes is just one example of the emerging uses for the mid-water tools."

Interactive Visualization Systems' (IVS3D) was founded in 1995 as the developer of the Fledermaus 3D visualization and analysis software suite. Government, commercial and academic clients in all areas of ocean mapping use the software internationally.

The Fledermaus software stands apart in providing scientists and engineers with interactive and intuitive tools for processing, quality control and analysis of multibeam sonar and related data. Its use significantly improves efficiencies in areas such as; nautical charting, geologic interpretation, the assessment of seabed habitats, planning routes for pipelines and cables, and the identification of geohazards during engineering development.

The company has offices in Canada, USA, and the UK, and a worldwide distribution network. For more information about the company and products, visit [www.ivs3d.com](http://www.ivs3d.com).

If you would like more information on this topic, or to schedule an interview, please contact Carole Mahoney at 207-636-7887 or via email: [carole@minternetmarketing.com](mailto:carole@minternetmarketing.com)



### **NOAA Signs Contract for Seven SeaBat 7125-SV Multibeam Sonar Systems**

27 January 2010 - National Oceanic and Atmospheric Administration's (NOAA) – National Ocean Service (NOS) has awarded RESON a contract for the delivery of seven SeaBat multibeam sonar systems for hydrographic and research applications.

NOAA is a federal agency within the United States Department of Commerce focused on the conditions of the oceans and the atmosphere. The fleet ranges from oceanographic research ships capable of exploring the world's deepest oceans, to smaller ships and launches responsible for charting the nation's coastal waters. The fleet supports a wide range of marine activities, including fisheries and coastal research, nautical charting, and long-range ocean and climate studies. NOAA's ships are specially equipped and designed to support the agency's programs, and have capabilities not found in the commercial fleet. Six of the SeaBat sonar systems are to be mounted on Hydrographic Survey Launches of the *SV Rainier*, *SV Fairweather*, *SV Thomas Jefferson* and *SV Ferdinand R. Hassler* while the seventh system will be mounted on the *SV Nancy Foster*. These sonar systems will be used primarily to continue the legacy of NOAA's 200 year mission of coastal and international charting.

SeaBat 7125-SV offers a number of new and unique features. The new transceiver provides an integrated multiport serial card and is optionally available with PDS2000 pre-installed for data acquisition and display as well as data processing on the same hardware platform. Four video outputs allow multiple survey and helm displays to be run. Roll stabilization and variable swath coverage of up to 140° featuring 200kHz/400kHz frequencies offers the preferred combination of swath and resolution.

A real-time uncertainty output from the SeaBat 7125 may be used in PDS2000, along with information from other sensors to calculate a TPE (Total Propagated Error). Soundings may be filtered by setting either the relevant IHO order or by defining a custom vertical error limit. Other new features in SeaBat 7125-SV include roll stabilization, XYZ offsets

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# News From Corporate Members

## Nouvelles de Membres corporatifs

for flexible transducer installations, Quality filter and advanced diagnostic which increase survey efficiency. Further, AutoPilot uses sonar tuning values from a default or user generated look-up table for hands free sonar operation.

Mike Mutschler, of RESON states: *"We are pleased to be able to continue this important relationship that is focused on Hydrographic survey efficiency. For many years, RESON has delivered a large number of SeaBat multibeam sonar systems to include the 8101, 8111, 8124, 8125, 8160, 7111, 7125 and now the SeaBat 7125-SV multibeam sonar model. With this continued investment in RESON SeaBat solutions we remain committed to the success of the NOAA fleet."*

#### Additional information

Contact: Sales Manager Mike Mutschler, RESON Inc., USA  
E-mail: michael.mutschler@reson.com

Press photos are available at [www.reson.com/sw2058.asp](http://www.reson.com/sw2058.asp)

#### About RESON

RESON is a market leader in underwater acoustic sensors, state-of-the-art echosounders, multibeam sonar systems, transducers, hydrophones, and PDS200 software. RESON's SeaBat® sonars and NaviSound® echosounder systems have become an industrial standard in areas such as hydrography, dredging and offshore operations as well as within defense and security applications.

Thanks to continued product and technology development, RESON leads its technological field. The company is growing and expanding into new markets and application areas – and its fourth generation of sonar systems will provide unprecedented performance for naval and commercial systems in terms of accuracy, resolution, depth rating, and range. RESON has its corporate headquarters in Denmark, with subsidiaries in the U.K., the U.S., the Netherlands, Germany and Singapore.



### **Woods Hole Oceanographic Institution (WHOI) Purchases the Third SeaBat 7125 Sonar System**

3 February 2010 - The National Deep Submergence Facility (NDSF) at the Woods Hole Oceanographic Institution (WHOI) re-cently purchased a new SeaBat 7125-SV-ROV system to be integrated into the Jason ROV.

This is the 3<sup>rd</sup> RESON SeaBat 7125 system that WHOI has purchased – the first two installed on the AUV *Sentry* and HOV *Alvin*. These 6000m depth rated systems provide the NDSF fleet of deep-sea exploration vehicles with ultra high-resolution bathymetric survey capabilities. The RESON SeaBat 7125's add to the unique set of tools that NDSF uses to image and map the vastly unexplored depths of our planet's oceans. The integrated SeaBat Multibeam bathymetric and backscatter data sets, combined with data provided by other onboard sensors, and video camera footage, all contribute to a unique multidimensional view of our deep unexplored ocean seafloor environments. WHOI-NDSF is pioneering a research path whose discoveries will benefit the entire Global Oceanographic community.

RESON is proud to be a part of this exciting adventure.

#### Additional information

Contact: Sales Manager Josh Grava, RESON Inc., USA  
Phone: +1 805-570-1728  
E-mail: josh.grava@reson.com

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### **RESON Initiates Proprietary Infringement Litigation Against R2Sonic**

1 March 2010 - RESON Inc. and RESON A/S (collectively "RESON") have initiated legal action against R2Sonic for misappropriation of RESON's trade secrets and violation of its trademark and copyrights. RESON charges that R2Sonic's competing sonar device is based on information and proprietary rights owned by RESON. RESON also charges that R2Sonic improperly targets RESON's customers by using proprietary customer lists and customer information developed by RESON. RESON also charges that R2Sonic is attempting to mislead customers by implying that R2Sonic is affiliated with RESON, when in fact no such affiliation exists. RESON is asking that the court prevent R2Sonic from any further use of information, technology, and proprietary rights belonging to RESON.

While competition is healthy, RESON cannot allow the unauthorized use of its information and proprietary rights to go unaddressed and RESON is optimistic that the Court will agree that R2Sonic's use of information belonging to RESON is inappropriate and should be discontinued. RESON has asserted claims for 1) Copyright Infringement (as a result of the use of software and firmware developed by RESON for its sonar devices), 2) Trademark Infringement (as a result of the use of a name which appears confusingly similar to that of RESON), 3) Unfair Competition (by attempting to mislead customers into thinking that R2Sonic owns technology developed by RESON and is affiliated with RESON), 4) Trade Secret Violations (by the misappropriation and use of information developed by RESON), and 5) Interference with Economic Relations (by attempting to take RESON's customers using the inappropriate tactics mentioned above).

Additional information

Legal Case FAQ: <http://www.reson.com/sw11121.asp>

or

Contact: Melissa J. Fassett, Price, Postel & Parma LLP, Santa Barbara, CA, USA  
Phone: +1 (805) 962-0011  
E-mail: [mjf@ppplaw.com](mailto:mjf@ppplaw.com)

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### MORTIMER, "Tony"



**Mortimer**, Anthony Ridge "Tony" passed away at his home in Brentwood, B.C. on September 15, 2009 at the age of 70 following a battle with cancer. Tony worked for the Canadian Hydrographic Service, Pacific Region for 29 years.

He joined the CHS as a Tech 1 in 1967, and at the time of his retirement in July 1996, was Regional Field Superintendent. Prior to joining the CHS, Tony had served for ten years as an officer on merchant ships trading mainly in the Western Pacific, becoming a Master Mariner. During his career, he surveyed and managed hydrographic survey operations on the British Columbia coast, as well as in eastern Canada and the Arctic.

During the early years (1967-1972,) Tony was assigned to field surveys on the B.C. coast aboard the survey vessels *Wm. J. Stewart*, *Marabell* and *Richardson*. He also served on the *Richardson* during Western Arctic surveys in 1967 and 1969.

In 1970 Tony assisted Stan Huggett in surveys aboard the *Parizeau* in Mackenzie Bay in the Western Arctic. The *Parizeau* was using a Decca Lambda chain and a hyperbolic mini-fix chain for positioning. As part of the survey Tony made observations using a polar orbiting satellite and a Magnavox satellite navigation receiver to assess the degree of reliability that can be expected from a satellite fix for real-time navigation decisions. By present standards the results were less than spectacular. It was noted that "errors in position of less than 3500 metres are extremely hard to detect from satellite data alone, and there appears to be no way of making an intelligent decision immediately on the accuracy of any one position." It was, however, Pacific Region's first involvement with satellite positioning systems and the beginning of Tony Mortimer's involvement with studies of long range positioning systems for surveying and navigation.

In 1972 Tony was 2IC on the *Wm. J. Stewart* surveys in the northern Strait of Georgia and approaches to the Skeena River. The following year he was assigned to work in Central Region. In 1974, he was appointed HIC for the first time, carrying out a number of surveys in the Victoria and Vancouver areas.

In 1974 the United States and Canada decided to use Loran-C as a primary radio navigation aid for the coastal zone. A master transmitter was established at Williams Lake to provide continuous Loran-C coverage on the B.C. coast. Due to the considerable overland propagation paths between the transmitters and coastal waters, there was concern that time delays (observed vs. predicted) would be large and the

Loran-C pulse shape might be distorted, resulting in cycle identification problems. It was determined that calibration surveys would be required to enable the preparation of accurately latticed charts at scales of 1:150,000. This calibration exercise required both Loran-C and Satnav Doppler satellite positions. In the spring and summer of 1977, measurements for calibration were made on the northern B.C. coast using *Parizeau*, then in the Strait of Georgia using the *Vector* and finally in Douglas Channel and Caamano Sound using the *Pandora II*. Further work was carried out in November 1978 to make cycle identification tests in Juan de Fuca Strait, where signal reception problems existed and to collect additional data in Dixon Entrance, Hecate Strait and Queen Charlotte Sound to define the lattice shift for charts in those areas.

In 1979 Tony Mortimer, assisted by Peter Milner, travelled to the Western Arctic to conduct Loran-C monitor tests. Further Loran-C assessments were carried out in the Beaufort Sea in 1980 in a collaborative venture with Dome Petroleum Ltd. and the federal MOT to assess Loran-C Accufix systems as possible navigation aids to tanker traffic in western Arctic waters.

In 1983 Tony returned to hydrographic surveys as HIC of the charter vessel *M.V. Polar Circle*. The survey season started at the northwest point of the Queen Charlotte Islands to carry out a resurvey of Parry Passage, which had initially been surveyed by the British Admiralty in the early 1900's. Upon completion of this survey the *Polar Circle* sailed to the western Arctic to begin the survey of the Beaufort Sea deep-draft shipping corridor and to carry out surveys near Baillie Island and Herschel Island.

In 1984 Tony was HIC for surveys of Fish Egg Inlet, Smith Inlet, Draney Inlet and Wyclees Lagoon on the central B.C. coast. These were all areas that had not been previously surveyed.

In addition to the considerable experience gained during a decade in the merchant marine and more than a decade of hydrographic surveying and technical investigations, Tony also acquired a B.Sc. in mathematics (University of Victoria) and a commission as a Canada Lands Surveyor.

Tony accepted a special assignment with CHS in Quebec Region in 1986 and 1987. He moved to Mont-Joli with his wife for that 2 year period. Tony was Manager of Data Acquisition Division and helped in the training of the survey teams. He was working with Paul Bellemare as the recently nominated CHS Director of Quebec Region.

Tony contributed in the moving (September 1986) of the Quebec Region CHS team from their office in City of Québec to the all new Maurice-Lamontagne Institute in Mont-Joli. He very much enjoyed his stay in the lower St. Lawrence

area and the people who worked with him at that time will remember him as an experienced person who brought a very positive contribution to the development of our new office.

In 1988 Tony was HIC of *John P. Tully* surveys in southern Queen Charlotte Sound. This was his last field survey.

In 1990, he became the Regional Field Superintendent following the retirement of R.W. "Sandy" Sandilands. Prior to his retirement he was the Acting, Manager, Geomatics Engineering for a period of several years. In this role, he actively directed the region's initial efforts to manage digital data and to digitize analog field sheets. He also served as a member of a committee providing expert advice to the Canada Atomic Energy Commission.

Tony Mortimer retired from the CHS on July 27, 1996. While most people at the end of a very successful career leave big shoes to fill, Tony in his unique style left big sandals.

Following his retirement, Tony continued to be an active member of the CHA, Pacific Region and continued to be involved in hydrography through the company Cascadian Hydrographic Services. In this capacity he carried out several contracts for the CHS, including a report on client views of Sailing Directions content and format. This report led to significant changes in the presentation and format of Sailing Directions on the B.C. coast. In 2000 he carried out a review of opportunities for mid-depth multi-beam bathymetric surveys with existing DFO equipment and platforms. The purpose of this study was to explore possible means of putting the EM 1002 multi-beam sounder to greater use for the benefit of both government and commercial requirements for mapping projects for underwater cables and pipelines.

Tony was also an accomplished artist. An example of one of his pencil illustrations is depicted below.



Moyana, 1956  
Tony's first training ship

As mentioned previously, Tony continued to be actively involved in Hydrography and the CHA. It is with great sadness that we mourn his death. He will be greatly missed by his wife Aline, his children Jennifer and David, a large, loving extended family, and his many friends in the hydrographic community.

*Fred Stephenson*

## HUNTER, Leamond

**Hunter, Leamond** passed away suddenly at his residence on Wednesday, February 3, 2010. Born in Springhill, he was a son of the late Stanley and Eva (Howarth) Hunter. As a young man Leamond served as an aircraft mechanic with the RCAF during the Second World War. He occasionally recalled special and humorous moments while in the air force, but it was obvious he was proud to have been able to serve his country. Later, he spent the majority of his working years as an oceanic cartographer with the Canadian Institute of Surveying and Photogrammetry. During his work as a cartographer, Leamond's notable accomplishments included charting Newfoundland and Labrador when they joined the confederation of Canada along with Baffin Island. He became legendary among his fellow cartographers for his quick tongue and sharp wit, and it earned him the nickname, "Leamond the Demon." An example of why he came to have this title was during a confrontation with a particularly large and imposing supervisor who, while reprimanding Leamond for misspelling his name, remarked that there was no excuse for "spelling my name wrong; it's right there on my door." To which Leamond snapped back, "that's fine, but I didn't have your \*%\$#@ door in the field with me!" Leamond will be deeply missed by son, Larry (Susan Belliveau), Collingwood; daughter, Valerie (Danny) Zwicker, Oakfield; brothers Howarth, Toronto, and Herbert, Springhill; sister, Julia (Peck) Lowther, Toronto; six grandchildren; several nieces and nephews. He was predeceased by his beloved wife, the former Vera E. McLellan; brothers, John and George. He was also predeceased by special friend, Glenna Russell. Funeral arrangements were entrusted to A. H. Brown Funeral Home, 5 McFarlane St., Springhill, (902-597-2361) where visitation was held on Saturday from 2-4 and 7-9 p.m. Funeral service was held in the funeral home on Sunday, February 7, at 2 p.m. with Rev. Frank Likely officiating. Burial in Hillside Cemetery, Springhill, in the spring. If so desired, donations in Leamond's memory may be made to the Lillian Allbon Animal Shelter.

## **NATIONAL CAPITAL REGION**

### **Appointment of Dr. Kian Fadaie as Director, Canadian Hydrographic Service, Science Sector, NCR**

I am pleased to announce the appointment of Dr. Kian Fadaie to the position of Director, Canadian Hydrographic Service effective January 12, 2009.

Kian comes to DFO from Agriculture and Agri-Food Canada (AAFC) where, as Senior Advisor, Science and Innovation, she was responsible for developing mechanisms for cooperation in Science and Innovation with national and international organizations. Also at AAFC, from 2004-2008, Kian held the position of Senior Advisor, Science and Development and subsequently the position of Acting Director, China-Canada Agriculture Development Program. In 1993, Kian was appointed as a Technology Advisor with Natural Resources Canada where she managed the Earth Sciences Sector's Innovation Acceleration Centre. In addition to her work as a Research Scientist with Intera Information Technologies and as a Researcher with the Geological Survey of Canada, Kian has authored many scientific papers, books, publications, citations and guides for use in national and international organizations.

Kian holds a Ph.D. Geophysics and Geochemistry from Carleton University, a M.Sc. Geophysics from Cornell University (USA), and a B.Sc. Geology from Pahlavi University (Iran).

Please join me in congratulating Kian on her appointment and in welcoming her to the department.

Dr. Savithri Narayanan  
Director General  
Ocean Sciences – Canadian Hydrographic Service

### **Nomination du Dre Kian Fadaie à Titre de Directrice, Service hydrographique du Canada, Secteur des Sciences, RCN**

Je suis heureuse d'annoncer la nomination de Dre Kian Fadaie au poste de Directrice, service hydrographique du Canada, à compter du 12 janvier 2009.



*Dr. Kian Fadaie*

Kian se joint au MPO en provenance d'Agriculture et Agroalimentaire Canada (AAC) où, au poste de Conseillère principale aux Sciences et à l'innovation, elle était chargée de développer des mécanismes de coopération en sciences et innovation auprès d'organismes nationaux et internationaux. Toujours à AAC, Kian a occupé de 2004 à 2008 le poste de Conseillère principale aux Sciences et développement puis le poste de Directrice intérimaire du Programme Chine-Canada de développement en agriculture. En 1993, Kian fut nommée au poste de Conseillère technologique à Ressources naturelles Canada où

elle a géré le Centre d'accélération de l'innovation du Secteur des sciences de la Terre. Elle a également travaillé au poste de Chercheuse scientifique chez Intera Information Technologies et comme Chercheuse à la Commission géologique du Canada. Elle est l'auteure de plusieurs documents scientifiques, livres, publications, citations et guides à l'intention d'organismes nationaux et internationaux.

Kian détient un Doctorat en géophysique et géochimie de l'Université Carleton, une Maîtrise en Sciences géophysiques de l'Université Cornell (É-U) et un Baccalauréat en géologie de l'Université Pahlavi (Iran).

Nous vous invitons à vous joindre à nous pour féliciter Kian de sa nomination et lui souhaiter la bienvenue au Ministère.

Dre Savithri Narayanan  
Directrice générale  
Sciences océanographiques – Service hydrographique  
du Canada

## PACIFIC REGION

### CHS Pacific Region, Data Acquisition and Technical Support Division January 11, 2010

The 2009 field season is done; many of the projects have been completed and submitted for review and/or product generation. The *Otter Bay* ended up working until late October – she lost two weeks in the summer after an unfortunate grounding, which thankfully did not damage the EM3002. 149 days are planned for testing, training and field surveys in 2010.

The *Vector* EM710 (0.5° x 1.0°) conducted surveys in support of the Kitimat Gateway and on the west coast of the Queen Charlotte Islands, in many places for the first time. Surveys of opportunity with other Science programs proved successful once again and will continue with even more prominence in 2010.

Peter Milner is finalizing his retirement date for spring 2010. Ernest Sargent will supervise multibeam projects in the coming year. More work in support of the Kitimat Gateway and in the Queen Charlotte Islands will keep both multibeam vessels busy for much of the summer.

The fast response craft *Shoal Seeker*, outfitted with a Teledyne Benthos C3D and Coda Octopus F185 motion sensor was used to resurvey the Bella Coola area. There are still some time synchronization and post-processing issues that continue to receive attention, hopefully resulting in a robust near shore mapping solution for the 2010 season. Kalman Czotter is leading the R&D projects in the coming year.

For 2010, Dave Jackson moves to DATS and will supervise the Revisory Survey program for the year. Ken Halcro will take over the role of Navigation Information Officer while Dave is on this assignment.

In addition to validating field returns, the Data Validation, Integration and Access unit, supervised by Bodo de Lange Boom, continues to work toward complete BC coast coverage of digital bathymetry as well as integrated bathymetry-topography grids and other non-navigation data products to support client requests.

Tidal group, with Denny Sinnott at the helm, has been upgrading the PWLN and Emergency Response (tsunami) gauges. They provided support to the Arctic gauging program as well as many of our own surveys closer to home. In 2010, the need for field gauges will continue

to be a priority, as will ongoing GPS observations to support the development of vertical datum separation modelling.

The computer and technical services unit, lead by George Schlagintweit, welcomes our newest CS-02, Alan Moore from DND. Keith Lee and Gordon Worthing have set their retirement dates in 2010. Ralph Loschiavo joins this group from the now dissolved Sonar Systems Group, and has been providing software support to data acquisition units. In 2010, C&TS will continue to support CHS in both office and field environments.

Meanwhile, several of our newest MDH will switch divisions in 2010 to see how the other half lives. Many of them will be on the data acquisition course in the fall.

### Navigational Products and Services Update January 2010

January 2010 brings the start of another busy year for our division. As we near the end of the fiscal year many projects are wrapping up and we are preparing for the new field season that is quickly approaching. Since many of our staff are newer MDH's in the initial phase of their training, we will see many rotations of staff between the divisions, so training will continue to be a prime focus. We sent five staff from Pacific Region on the latest Data Transformation courses held in Burlington, Mont Joli and Ottawa. By all reports they learned a lot and had a very enjoyable experience meeting with colleagues from other regions.

A continued focus of the division is the movement towards the HPD production environment. Training is ongoing with all staff as we revise processes, develop new skills and build products in a way which is much different than with the previous Caris GIS tools. Staff see the long term benefits of this movement, even though the flow of data and how it is handled is a little different than before.

We continue to rotate staff through the Client Liaison duties, and although the Vancouver Boat show has been cancelled this year due to the 2010 Olympics and the new roof construction on BC Place Stadium, we will be attending the Seattle International Boat Show at the beginning of February. We will be showcasing a revised format of the Pacific Coast Chart Catalogue that was produced in Ottawa. This publication is now printed on 24" x 36" paper instead of the standard A-0 format, allowing for more cost effective printing.

The Hydrographic Data Centre is busy getting our records in order for the transition to CHSDIR 2. This long awaited move should show some real benefits in the tracking of data and the reports that can be generated.

On the production front we have 6 new paper charts and 1 new edition in Ottawa awaiting release, all in the approaches to Kitimat area. This area continues to be the prime area of focus for new chart production and the collection of new survey data to ensure we have modern standards of coverage for the changing navigational needs in the area. With the recent completion of some smaller scale ENC's in Pacific Region, we now have coverage of at least one scale for the whole coast. In 2009 we saw the release of 27 first editions of new ENC's, and 23 new editions of existing ENC's.

We are nearing the completion of the Sailing Direction volumes for the south coast (PAC 201 & 202), and then we will begin work on a PAC 203, the north coast edition (which will combine the current PAC 205 & 206). The

new edition of PAC 201 and 202 will include a complete review of all material in these volumes, with the addition of recent photographs. This will replace the current BC Vol. 1 edition.

In support of the 2010 Olympics, we have produced 2 "provisional" charts for BC Ferries use during the games. These are special hydrographic products which fall within the CHS definition of "provisional" charts, and will have a limited lifespan during the games only. It was a good test of the versatility of HPD as a production system.

Pacific Region staff are also staying abreast of recent eNav developments, having attended a conference in Seattle on this topic, in addition to participating in the Coast Guard stakeholder analysis. Also we are staying current with the new IMO requirements for mandatory ECDIS carriage starting with the phased in approach in 2012 for SOLAS vessels, to ensure we have the required up-to-date ENC's available.

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**Canadian Hydrographic Association**  
**Association canadienne d'hydrographie**

**NEWS**  
**NOUVELLES**

**NATIONAL**

**CHA National Elections:**

On December 10, 2009, following the establishment of the CHA's Elections Committee, a call for nominations was put out to the membership of all branches (please see following for the official text). The nominations were for the election of CHA President, for the 2010 to 2012 term. The nominations were scheduled to close at midnight on December 23, 2009 and were to be submitted to the Elections Committee.

The elections committee was presented with an unusual situation where there was a single nomination submitted – that of George McFarlane, sitting president of CHA. The elections committee completed its mandate by submitting a report informing members of the situation, and acclaiming George in his position as president. The official text follows the Call for Nominations.

CALL for NOMINATIONS  
NATIONAL PRESIDENT  
CANADIAN HYDROGRAPHIC ASSOCIATION  
2010-2012

PREPARATIONS FOR ELECTION  
The National President's term of office will expire on February 18, 2010. In preparation for a smooth transition from our present national executive to our new executive, nominations are being solicited.

EXPERIENCE REQUIRED  
It is strongly suggested that all nominees for President of CHA have previous executive experience with the Canadian Hydrographic Association or a similar organization.

WILLINGNESS TO STAND  
Individuals may be nominated or may volunteer by communicating this to their CHA Branch Vice-President who will forward this to the Elections Committee no later

than midnight December 23, 2009. Nominees willing to stand for election are required to provide a brief resume that must include their election position (purpose for running and/or their goals for CHA) for national distribution by January 7, 2010 to the Elections Committee. The Elections Committee membership is as follows:  
 sean.hinds@dfo-mpo.gc.ca (Sean Hinds)  
 carol.nowak@dfo-mpo.gc.ca (Carol Nowak)  
 andrew.smith@dfo-mpo.gc.ca (Andrew Smith)

#### NOMINATIONS LIST

The list of nominees will be circulated to Branch Vice-Presidents for distribution along with appropriate voting ballots by no later than January 11, 2010. Ballots are to reach all members (members at sea or holidays excepted) to allow 10 business days to respond.

#### COUNTING OF BALLOTS – THE VOTE

Ballots will be accepted by the Branch Executives via fax, e-mail, or hardcopy mail up to February 11, 2010. Branch Executives are to forward this collection of ballots to the Elections Committee (Sean Hinds and cc other Election Committee members) by February 12, 2010. The successful candidate will be declared on February 16, 2010.

#### ADDITIONAL INFORMATION

##### Goals of the Association:

- Preserve our core values and aims as identified in the CHA constitution.
- Service to our members and subscribers.

##### How the Association achieves it's goals:

- Continuing Professional Development (CPD) through the delivery of Seminars, Presentations, Conferences, Workshops and Training for Hydrographers.
- Publish Lighthouse.
- Strategic alliances and affiliations with National and International Professional Surveyor and Geomatics Associations.

##### Alliances:

International- The Hydrographic Society of America, International Federation of Hydrographic Societies (formerly The Hydrographic Society) and the International Federation of Surveyors (FIG) Commission 4

National- Canadian Institute of Geomatics (CIG) and the Association of Canada Lands Surveyors (ACLS). The national president of CHA is a member of CIG council, representing hydrography. CHA is the CIG hydrographic committee.

##### National President- Terms of Reference:

I. Appoint a national secretary, treasurer and any other member (where required) to the national executive.

II. Direct the business of the Association  
 Canadian Hydrographic Conference  
 National Student Award  
 Lighthouse

III. Support strategic alliances with National and International Surveying and Geomatics Association. This includes serving as CIG councillor for hydrography during his/her tenure and the appointment of the delegate to FIG Commission 4.

IV. Chair a minimum of one Director's meeting and one AGM per calendar year.

V. Offer support to Branches and foster new initiatives.

### Canadian Hydrographic Association Report of the Elections Committee National President 2010

##### Background:

The Canadian Hydrographic Association (CHA) Board of Directors took a decision on November 5, 2009, to establish an 'Elections Committee' to oversee the election of the CHA National President for 2010. It was decided that a three-person committee was adequate and Andrew Smith, Carol Nowak and Sean Hinds were identified as CHA members to undertake this task. Article 27 e) of the By-Laws provides the authority of the Board of Directors to establish a committee for the election of the National President.

##### Process:

A request for nominations was sent to Branch Vice-Presidents for circulation on December 10, 2009, (Appendix 1) with nominations to close on midnight December 23, 2009. Nominations received were to be compiled into a ballot and provided to all CHA members by no later than January 11, 2010. Ballots were to be received back to the Elections Committee by February 11, 2010 and the new National President declared by Feb 16, 2010.

##### Results:

A single nomination of Mr. George McFarlane, was received by the closing date. Mr. McFarlane verbally committed to stand for election and this effectively resulted

in Mr. McFarlane being the acclaimed the new National President of CHA.

#### Conclusion:

The term of office for the newly elected CHA National President, Mr. George McFarlane, will begin on February 18, 2010 which is the end of the term for the current National President's post.

#### Elections Committee termination:

The Elections Committee wishes to extend its appreciation to the board of Directors for their support and their favour during this election process and its sincere congratulations to the new incoming National President. Upon notification in the minutes, of the Board of Directors, that this report is accepted then this shall effectively terminate this Elections Committee.

Prepared for the CHA Board of Directors Meeting January 21, 2010

\_\_\_\_\_  
Signature  
Andrew Smith

\_\_\_\_\_  
Signature  
Carol Nowak

\_\_\_\_\_  
Signature  
Sean Hinds

### **CHA Student Award Committee**

**Interim Report – Jan. 19, 2010**

Submitted to: George McFarlane, National President, Canadian Hydrographic Association

On August 20, 2009 members of CHA's Student Award Committee met to evaluate applications and select the Student Award Winner for 2009. Committee members included George McFarlane (Chair), Terese Herron, Kirsten Greenfield, and Christine Delbridge. A total of 13 applications were received and evaluated by the committee. Among those, two applicants were deemed to have met the application criteria as stated in the award guidelines. Although both qualifying applicants are highly deserving, the decision was made to grant the award of \$2000 to Travis Hamilton for his demonstrated educational capabilities, experience and interest in survey science and, in particular, the field of hydrography. Travis is a student in the Geodesy and Geomatics Engineering program at the University of New Brunswick.

In preparation of the next award to be handed out in 2010, the committee is in the process of revising the application criteria to better reflect the ideal merit qualifications of candidates and ensure that all appropriate post secondary programs are included in the eligibility list. A draft copy of the revised application criteria is attached. The intent

is to distribute application materials to schools in mid-February. Revised materials will also be made available on the CHA website once finalized.

Christine Delbridge, Terese Herron, Kirsten Greenfield

[Editor Note: The updated criteria has been published in this edition of *Lighthouse* (see page 16). The updated criteria and application form has been posted on the CHA website at [www.hydrography.ca](http://www.hydrography.ca).]

### **CHA Website Redesign**

Following the Director's Meeting in November, 2009, a committee was struck for the redesign of Canadian Hydrographic Association website at: <http://www.hydrography.ca/NEWcha-home.html>. The committee was tasked with finding a suitable web-developer who could create an attractive and functional website, which presents information about the regional branches as well as the national organization. The committee met as needed, and reviewed the requirements and the proposals for the web redesign.

A suitable candidate was found, and there will be ongoing liaison between the developer and the web-committee. Issues of content, design, colour selection and general layout will be dealt with during this process. The current site is still active, and some updating has been performed in order to maintain relevance. The new site will replace the old at the same URL, and will hopefully go live well before the new conference. Stay tuned for further developments, or keep checking the current website URL.

### **Vancouver 2010 Olympic Torch Bearer**

John Ells of the Canadian Hydrographic Service had the privilege of being an Olympic Torch Bearer for the Vancouver 2010 Olympics. He carried the Torch on Day 20, in the Halifax area. Being from Nova Scotia, John had many family and friends from the area who were on hand and witnessed that unforgettable event. In order to become eligible for the Relay John applied online along with millions of other Canadians. After a lengthy selection process, which included answering daily trivia questions, he was asked to submit an essay and "share a positive impact you have had on yourself or others related to active living or about how you help the environment". John eventually won one of the 676 relay spots available. He returned home with the actual torch he carried during the relay to keep as a lifelong souvenir.

The Olympic Torch Relay when it is completed will have had 12000 Torch Bearers and covered a distance of 450000km. The largest Torch Relay ever.



*John Ells at the ready and on the Torch Relay*

## PACIFIC BRANCH

The branch held their Annual General Meeting in December with the following elected as executive for 2010: Ken Halcro (Vice-President), Craig Lessels (Secretary), Bodo de Lange Boom (Treasurer), Brian Port, Terry Curran, Michael Ward and Carol Nowak (Past VP). The past executive would like to thank Fred Stephenson for his dedication and hard work.

The 2009 BCIT Pacific Branch bursary award was presented to David Newman, Geomatics Engineering Technology program. David received a bursary in the amount of \$500.00.

We had many members away for most of the summer which lead to a quiet summer for the branch. In the Fall we had 3 seminars. Rob Hare gave a presentation on the EM710 installation on the CCGS *Vector*. George Schlagintweit gave a very interesting and entertaining slide show on his field experience with C&A region UNCLOS Arctic survey. David Mosher gave a presentation titled "It's a 2-way Street: Bathymetric Charting for geoscience and Geoscience for bathymetric charting". We also co-

sponsored the CHS Chili cook-off. Four out of the five entries were from CHA members (Eric Earl, Rob Hare, Carol Nowak and Al Thompson). Carol Nowak won with her creation of Chipolte Turkey Chili.

We also offer congratulations to Brian Port and Christine Brady on the birth of their son Angus, a brother for Calla.

## ATLANTIC BRANCH

The CHA's Atlantic Branch passed its fourth full year as a reconstituted, formally chartered branch. While 2009 was a quiet year, the Atlantic Branch still managed to sponsor and participate in World Hydrography Day in June. The branch was also a sponsor of the ICES Conference in Halifax in September. ICES is a large organization, whose acronym stands for International Council on the Exploration of the Seas. The sponsorship allowed the CHA an opportunity to promote itself, and raise its profile to some degree.

The Atlantic Branch held its Annual General meeting in December 2009, on schedule. During this meeting, it was determined that the executive roster will stand as is. The executive consists of: Andrew Smith (VP), Mark McCracken (Treasurer), Bruce Anderson (Membership Coordinator), Mike Lamplugh and Sarah Rahr (Directors).

It was also decided that the branch will again sponsor World Hydrography Day in 2010, and continue to pursue the construction of museum-quality display cabinets for Hydrographic artifacts. The branch will also be on the lookout for opportunities to enhance its profile by organizing speakers and technical presentations or demonstrations. Please be on the lookout for these during 2010.

## SECTION DU QUÉBEC

En 2009, la Section du Québec a collaboré pour une deuxième année avec la revue « Québec Yachting » en écrivant une chronique à chacune des parutions du magazine. Les sujets traités portaient sur des connaissances générales en hydrographie et sur l'information disponible dans internet pour faciliter la navigation et pour augmenter la sécurité des navigateurs et de leurs passagers. Cette collaboration se poursuivra en 2010 et nous en profiterons pour faire connaître la Conférence hydrographique du Canada qui se tiendra à Québec du 21 au 23 juin.



Nous préparons depuis l'automne la publication de la 19<sup>e</sup> édition du Carnet de Bord qui paraîtra en février 2010. Nous en sommes déjà à la troisième et dernière année de l'entente conclue avec le Regroupement des plaisanciers du Québec qui nous permet de tirer à 30000 copies le Carnet de Bord. Nous espérons renouveler cette entente pour une autre période de trois ans. Les négociations avec le Regroupement des plaisanciers du Québec se feront à l'été.

Le Service hydrographique du Canada et l'Association canadienne d'hydrographie ont conclu une entente de partenariat en octobre dernier pour réaliser ensemble la Conférence hydrographique du Canada qui se tiendra à Québec du 21 au 23 juin 2010. La Section du Québec s'est vue octroyé dans cette entente la responsabilité du suivi financier de la Conférence. Elle collabore aussi avec le responsable du Service hydrographique du Canada, région du Québec, aux suivis des opérations quotidiennes avec les différents comités mis en place, les fournisseurs de service, les commanditaires et d'autres intervenants.

Les membres de la Section du Québec espèrent vous voir en grand nombre en juin à Québec afin d'échanger sur les défis et les préoccupations du monde maritime, et ce, dans un milieu convivial et de détente. La Vieille Capitale et toutes ses activités n'attendent que vous!

## OTTAWA BRANCH

The 2009 Branch report for the Ottawa Branch actually begins in December, 2008, when after some discussion among past and present members of the CHA in Ottawa it was decided to attempt to re-instate the Ottawa Branch. With the support of the Canadian Hydrographic Association directors and Central Branch, we started the process of recreating the Ottawa Branch. CHA directors authorized the release of \$500.00 of the funds held in trust for the Ottawa Branch to support activities that would promote CHA and attract members in the Ottawa area.

At the March 23, 2009 CHA National AGM, CHA authorized the reinstatement of the Ottawa Branch of the Canadian Hydrographic Association. To assist the Branch, CHA National waived the \$20 per member fee that Branch is normally required to forward to the National to support its activities.

The following members agreed to serve as an interim executive for the Ottawa Branch:

Kian Fadaie – Vice-President  
Sheila Acheson – Secretary Treasurer  
Sean Hinds – Executive member

To date, our activities have consisted of four lunchtime seminars in the Boulton Boardroom at 615 Booth.

On December 10, 2008 an introductory 'Pizza and Presentation' lunchtime seminar was held. We were fortunate to have as our inaugural guest speaker, Marty Taillefer, Senior Science Advisor-Operational Oceanography of the Ocean Sciences - Canadian Hydrographic Service. Approximately 25 people attended his presentation, "Naval Underwater Operations: Combining the Sciences of Oceanography, Hydrography, and Acoustics - a salty dip into warfare."

On Feb. 2, 2009, 35 people attended our second Pizza and Presentation event. Dick MacDougall presented a briefing on "Update on the Canadian UNCLOS Program to Delineate the Outer Limits of the Continental Shelf."

On July 23, Savi Narayanan presented "One-ocean - Global responsibility," a discussion of how our view of the ocean and our knowledge and use of it have evolved over the centuries.

On October 1, Mike Lamplugh's lunchtime presentation, "A Journey to the North Pole," provided a non-technical report on the 2009 joint Canadian- Danish-Swedish expedition aboard the ODEN to collect scientific data for the Danish and Canadian Continental Shelf projects. This talk attracted a number of new people from DFO headquarters at 200 Kent St. and from Natural Resources Canada.

We are grateful to all these speakers who were so generous with their time and efforts.

Ottawa Branch was saddened this year by the passing of one of members, Don Vachon. An obituary to Don was published in the Spring/Summer edition 74 of Lighthouse and copies of this edition were given to Don's family.

### Ottawa Branch Annual General Meeting

Ottawa Branch held its 2009 AGM on December 14, 2009. The following members of the 2010 Branch executive were acclaimed at the meeting:

Vice President: Kian Fadaie  
Secretary-Treasurer: Sheila Acheson  
Executive Members: Sean Hinds  
Daniel Pelletier  
Nancy Akerley

## CENTRAL BRANCH

### BRANCH NEWS

The highlight of the summer occurred in July when *Surveyor* participated in the celebrations surrounding the 250<sup>th</sup> Anniversary of the "Founding of the Royal Navy Dockyard 1759-2009". Please see "Admiralty Launch *Surveyor*" for additional information. No meetings occurred during the July to September hiatus as most CHA executive members were away on surveys. The Annual BBQ was held in late September.

#### Seminars

Since the previous edition of *Lighthouse*, Central Branch has held four General Meetings including the Annual General Meeting in December. In addition to the business portion of the meetings, a number of interesting topics were presented by guest speakers.

- Vice-President Roger Cameron did a presentation on the US Hydro 2009 conference held in Norfolk, Virginia.
- Past Vice-President Fred Oliff did a presentation on the celebrations marking the 250<sup>th</sup> anniversary of the founding of the Royal Navy Dockyards in Halifax, July 17-19, 2009.
- Andrew Leyzack, Past President of CHA National, did a presentation on International Board Certification of Hydrographers. He presented a review of the commission's work on the certifications of competency for nautical surveyors and cartographers at both the Cat-A and Cat-B levels. Andrew is the Chair of F.I.G. Commission IV and also writes a regular feature in *Lighthouse* entitled Go F.I.G.ure.

Thank you to the guest speakers for their informative presentations which were well received by those in attendance.

Special thanks to Heimo Duller and Brian Power for hosting meetings, your hospitality is greatly appreciated. Meetings were also held at The Burlington Art Centre and at the Canada Centre for Inland Waters

#### Correspondence

Announcements for upcoming meetings were sent out to members. Regrets were noted and included in the meeting minutes. Frequent correspondence occurred within the CHA Executive regarding CHA business.

Canadian Institute of Geomatics (CIG) and CHA exchanged correspondence.

#### Admiralty Launch Surveyor

Central Branch members crewing *Surveyor* participated in the celebrations surrounding the 250<sup>th</sup> Anniversary of the "Founding of the Royal Navy Dockyard 1759-2009" in Halifax N.S. July 17-19 2009. Please see the report entitled "Halifax Navy Dockyard Event". The Launch is currently in storage at CCIW.

#### Membership

##### Branch

The Central Branch membership stands at 62, down from last year's number of 70. This is largely due to the drop in corporate members from sixteen to eleven. Corporate members are listed in each edition of *Lighthouse*. The branch is pleased to welcome new member Dr. Michael Sutherland and corporate members Hypack Inc. and Odom Hydrographic Systems Inc. Central Branch is honoured to include several special people in its membership: Earl Brown, Tom McCulloch, Ab Rogers and Sam Weller - Life Members; George Macdonald - Honorary Member and Steve Ritchie - International Life Member.

The membership committee would like to thank all of its members for their continued support.

##### International

Central Branch of the CHA administers the International Members on behalf of the National Office. This committee helps to maintain contact with the CHA's 9 International members and ensures they have an opportunity to voice opinions and take part in CHA activities.

We encourage communication between our members abroad and are delighted when we receive news from them. All International Members receive the Central Branch NewsLetter to keep in touch between issues of the CHA's Journal *Lighthouse*.

#### Elections

As this year's AGM approached, we entered into our usual round of nominations for elections to fill positions for 2010. This year, nominations were opened with the first fall general meeting on Wednesday, October 28th 2009.

The branch executive is comprised of a vice-president, who represents the branch on the national board of directors, a secretary - treasurer and additional executive members. The number of additional executive members is based upon the total number of branch members in good standing, one executive member for every 15 full members.

one of whom shall be the immediate past vice president. Calculations for 2010 are (based on the membership numbers as of October 28, 2009) as follows: 50 members in good standing / 15 members per executive position = 3 executive members, with 2 of those being filled by the past VP and Treasurer / Secretary split position.

Eligible positions for the 2010 branch executive nominations are:

\* Vice President

(Roger Cameron may continue for 1 more year)

\* Treasurer

(Donald Kalley may continue for 2 more years)

\* Secretary

(Christine Delbridge may continue for 1 more year)

\* Additional executive member – 1 position open

(Immediate Past Vice-President position is currently held by Fred Oliff)

Nominations closed at the AGM in December. All positions were acclaimed with no voting necessary. Roger Cameron will continue as Vice President, Julia Morrison-Duller was nominated as Secretary and accepted, taking over from Christine Delbridge, Donald Kalley will continue as Treasurer and Andrew Leyzack as the Executive Members. Fred Oliff continues as Past President

The branch would like to thank Christine Delbridge, Jim Weedon and Jeff Walker for their contributions as executive members.

### Website

The association maintains a website that covers National and Branch information. The site is updated throughout the year for Central Branch activities as well as for National and other Branches, as information becomes available. Direct your browser to <http://www.hydrography.ca>. Christine Delbridge has taken over website maintenance from Jim Weedon.

### Summer BBQ

This year, the CHA Central Branch held its annual "summer" barbeque in the fall, on Saturday, September 26th after attempting several dates earlier in the summer. Many summer events, including the Navy Dockyard 250th anniversary re-enactment in Halifax and summer field surveys, had our members busy all summer. It was postponed to the fall so as many members as possible

could attend. It was again graciously hosted by Jim Weedon at his home in Beamsville. Jim's backyard oasis of the past summer's BBQ was transformed into "Tent City" to keep up with the changing weather for this year's event. Jim did a magnificent job keeping everyone dry and warm around the fire. Lots of great food, and great company, made for a wonderful afternoon enjoyed by all who attended.

Jim also provided us with two wonderful (and unexpected) door prizes! A cooler was won by John Medendorp, and a Muskoka chair (hand-made by Jim) was won by Jennifer Campbell.

Thanks to all those who pitched in for the planning, execution and clean-up. Thanks again to Jim Weedon for hosting, to Jeff Walker for organizing, and to Roger Cameron and Fred Oliff for all their help in pulling off another great event.

### Halifax Navy Dockyard Event

Tall ships from across the globe, replica longboats and an assortment of other vessels joined to celebrate the 250<sup>th</sup> anniversary of the founding of the Royal Navy Dockyard 1759-2009 and launch of the Canadian Naval Centennial, in Halifax on July 17-19. The event was hosted by HMCS *Scotian*, the Naval Reserve unit in Halifax.

Several long-boat crews from Canada and the US participated in the celebrations in addition to the Sail Training race participants crowding the Halifax wharves. This event represented the culmination of years of effort on the part of *Surveyor's* friend, Captain Vic Suthren (Navy), and his organizing committee and a hearty Huzzah goes out to them and our Navy hosts for a well-orchestrated event. Thanks to some much-needed assistance from CHS, Central and Arctic Region, Brad Tinney and I were able to tow Central Branches replica launch *Surveyor* so that she might also partake in the event. We managed to get *Surveyor* there in just over a day and a half of driving, arriving in Halifax in the afternoon of the 17<sup>th</sup>. Launching the boat into the harbour was smooth thanks to the Navy staff and she was soon bobbing happily at the wharf, dwarfed by the Royal Navy supply ship across the dock from her.

Saturday morning, after a hearty breakfast including Navy beans, we all stepped aboard for a practice row. We ended up rowing in the rain, and standing in the rain on the parade row at Bishop's Landing while the dignitaries

went through the solemn process of handing over gifts from the 1790s era politicians and Navy-types to those holding those positions in today's government.



*Longboats depart HMCS Scotian in the Halifax fog, bound for Bishop's Landing.*

We then rowed back to HMCS *Scotian* for some much-needed refreshments, courtesy of event sponsor, Pusser's Rum!

On Sunday, we were scheduled to sail to Point Pleasant in the afternoon, to salute the Navy Memorial. The day dawned foggy, lending an air of eeriness to the scene; longboats disappeared and reappeared in the gloom on our way across the Halifax Harbour to greet the *Amistad* at Alderney Landing in Dartmouth.

After a pancake breakfast, we put the sails up and made 5 knots (9 km/h) before a crack in the mast step put an end to what had been the most fun of the entire trip. We were having a great time tacking back and forth across Halifax Harbour, dodging the ferry and escorted by a Navy FRC!

This event put a lot of vigour back into the *Surveyor* and we were buoyed by all the support given us by other longboats crews, most notably by those from our local area. Big thanks go out to our coxswain John Dixon, who steered us clear of obstructions, our leader Brian Power and his son Jason, Jeff Walker, Ken Dexel, Brad Tinney (whose driving skills I won't comment on here!), our fearless admiral Gill Bibby and his son David, and guest rower, Glenn Ellement. Of course, like any good

longboat crew, we could not have gone to sea without a good support team ashore and they were Anna Power, Barbara Dixon, Francine Dexel, Carol Robinson and Kristen English.

### Central Branch Annual General Meeting

The Central Branch of the Canadian Hydrographic Association celebrated its 20th Annual General Meeting and dinner on December 10, 2009. Hard to believe that we have been holding our event at the Mimico Cruising Club for twenty years! Once again the 'great room' was decked out in seasonal splendour, situated on the shores of Humber Bay, Lake Ontario.

Mother Nature cooperated with those of us coming in from Burlington and beyond as we were graced with an El Niño winter, thank you! The warmth of the hearth gave way to the feeling of congeniality amongst friends as we enjoyed yet another early winter gathering on the soon-to-be-frozen shores of Humber Bay.



*(L to R) V.P. Roger Cameron, Ken Dexel, Brian Power, Christine Delbridge, John Mendendorp, Jim Weedon.*

After the business portion of the meeting was completed, our 2010 Executive was sworn in. Many thanks to Jeff Walker, the one-man Elections committee who managed to get quite a lot of nominations (and get some of those nominated to accept!) and we thank outgoing at-large member Jim Weedon for many years of service and Christine Delbridge, secretary. Christine will still be

providing help by taking over website duties from Jim. We welcome Julia Morrison-Duller, who has agreed to take over as Secretary (Julia won the 50-50 draw!), and Andrew Leyzack, former Branch V-P and CHA National President. Thanks to you both and welcome!

Our guest speaker for the evening, Dr. Terry Gillespie, Professor Emeritus at the University of Guelph, gave the audience much to think about by relating weather realities and folklore. By taking a look at the science behind some of the more well-known weather sayings, such as 'red sky at night, sailor's delight', Dr. Gillespie explained the phenomenon and its use in forecasting weather patterns.



*Dr. Terry Gillespie*

Fred Oliff, master-of-ceremonies for the evening, tried to keep the evening light and cheery, but went on a little too long with Canadian weather trivia! Us Canadians are fascinated by the weather due the fact we live in a northern country and are greatly affected by the weather so there is a treasure trove of data to be mined!

Door prizes were eagerly anticipated and the riches were received with the sort of delight usually reserved for Christmas morning! Thanks to Christine Delbridge for picking out such wonderful prizes!



*(L to R) Past National President Andrew Leyzack, Karen McWilliam, Christine Delbridge, Sam Weller:*

The AGM committee, made up of many volunteers, has endeavoured to make this an enjoyable evening for our members and guests. We would like to thank everyone who gave tirelessly of their time and effort this year at each and every one of the CHA events and especially those who contributed to make this evening a success; there are many folks working in the background who receive no thanks until now. Members are encouraged to offer new ideas or suggestions for future meetings, to lend a helping hand or perhaps volunteer for an executive position to help us continue to deliver the program. We cannot do it without your help!

And many thanks, always, to the staff and management of the Mimico Cruising Club for hosting us yet again, doing it with such panache and for decorating the venue in such tasteful seasonal decor! You never fail to put us in the Christmas spirit!

We do hope to see you at next year's event when we will celebrate our 21st AGM and dinner!

# Rates / Tarifs

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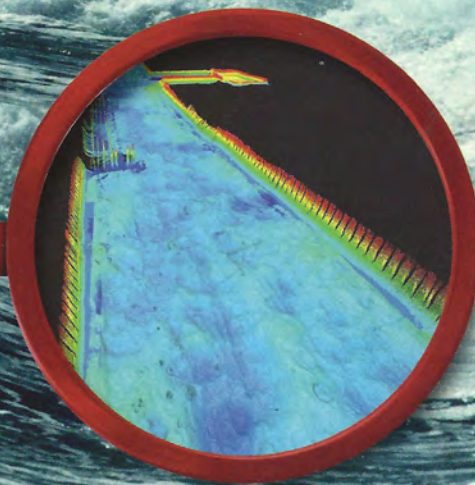
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