

# MINUTES OF ACZISC MEETING #47

## Atlantic Coastal Zone Information Steering Committee

Date: Wednesday and Thursday, 25-26 January 2006

Location: Hugh John Flemming Forestry Centre  
Fredericton, New Brunswick

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### **PARTICIPANTS** (<sup>1</sup>ACZISC member; <sup>2</sup>Advisory Committee member; <sup>3</sup> Director, ACZISC Association)

<b>Name</b>	<b>Affiliation</b>	<b>Tel. No.</b>
Tim Anderson <sup>1</sup>	Fisheries and Oceans Canada, NL Region, Oceans and Habitat	709-772-2852
Paul Bellemare	Fisheries and Oceans Canada, Canadian Hydrographic Service – Québec Region	418-775-0501
David Boyce <sup>1</sup>	Community Organizations, Southeast Environmental Association	902-838-3351
Michael Butler <sup>2</sup>	ACZISC Secretariat	902-494-1977
Bernie Connors	Government of New Brunswick, Department of the Environment and Local Government	506-453-2020
Ted Currie	Fisheries and Oceans Canada, Maritimes Region, Oceans and Habitat	506-851-3650
Réal Daigle <sup>1</sup>	Environment Canada, Meteorological Service of Canada	506-851-6743
Dave Duggan	Fisheries and Oceans Canada, Maritimes Region, Oceans and Habitat	902-426-6183
Dolores Durant	Agriculture and Agri-Food Canada, National Land and Water Information Service	613-759-1563
Paul Earnshaw	National Defence, Formation Environment (for Carol Lee Giffin <sup>1</sup> )	902-721-8610
Richard Eisner	Fisheries and Oceans Canada, Maritimes Region, Innovation Office	902-426-7564
Grant Gardner <sup>3</sup>	APICS <sup>1</sup> , Coastal Zone Canada Association and Memorial University of Newfoundland	709-737-8155
Norville Getty	Union of New Brunswick Indians, Policy	506-458-9444
Michel Goguen	Public Works and Government Services Canada (for Bill Blight <sup>1</sup> )	506-851-6784
Jacques Grondin <sup>1</sup>	Natural Resources Canada, Geomatics Canada	613-995-0042
Tim Hall	Fisheries and Oceans Canada, Maritimes Region, Oceans and Habitat	902-426-4116
Russ Henry <sup>1</sup>	Government of New Brunswick, Department of Agriculture, Fisheries and Aquaculture	506-457-6922
Darren Hicks <sup>1</sup>	Government of Newfoundland and Labrador, Department of Natural Resources	709-729-6584

## ***PARTICIPANTS (cont'd)***

Larry Hildebrand <sup>1</sup>	Environment Canada, Sustainable Communities and Ecosystems Division	902-426-2131
Don Hogan	Atlantic Canada Opportunities Agency, Policy and Coordination	709-772-2954
Justin Huston <sup>1,2</sup>	Government of Nova Scotia, Department of Agriculture and Fisheries	902-424-2996
Marianne Janowicz <sup>1</sup>	Government of New Brunswick, Department of the Environment and Local Government	506-457-4846
Claudette LeBlanc	ACZISC Secretariat	902-494-1977
Geoff Lewis <sup>1</sup>	Industry Canada, Energy and Environment Branch	902-426-9475
Jane Macdonald	Health Canada, Safe Environments Program	902-426-1042
Art MacKay	St. Croix Estuary Project	506-467-9905
David McIlhagga	DM Solutions Group	613-565-5056
Philippe Morel	Environment Canada, Corporate Affairs Branch	418-648-4619
Ron Perley	Union of New Brunswick Indians, Natural Resources	506-458-9444
Trevor Rankin	Natural Resources Canada, GeoConnections Secretariat	613-992-4488
Gary Rockwell	Fisheries and Oceans Canada, Canadian Hydrographic Service (for Richard MacDougall <sup>1</sup> )	902-426-2432
Carol Ann Rose <sup>1</sup>	Fisheries and Oceans Canada, Maritimes Region, Oceans and Habitat	902-426-2065
Mike Sheen <sup>1</sup>	Industry Canada, Sustainable Technologies	709-772-5351
Bob Taylor <sup>1</sup>	Natural Resources Canada, Geological Survey of Canada – Atlantic	902-426-7736
Jane Tims	Government of New Brunswick, Department of the Environment and Local Government	506-453-3660

### **1. *WELCOME and INTRODUCTION OF PARTICIPANTS***

Mike Butler, ACZISC Secretariat, called ACZISC Meeting #47 to order at 0830 hrs on Thursday, 26 January 2006. He welcomed members and guests and thanked the Government of New Brunswick for sponsoring the meeting. A roundtable introduction of all of the participants followed – see pages 1-2.

Mike reminded the meeting participants that the ACZISC had celebrated its 14<sup>th</sup> anniversary on 15 January. Its first meeting was held on that date in the Boardroom of the Council of Maritime Premiers in Halifax.

### **2. *ADOPTION OF AGENDA, AND REVIEW AND APPROVAL OF MINUTES FOR MEETING #46***

The provisional Agenda for ACZISC Meeting #47 was reviewed and approved (attached).

The draft minutes of ACZISC Meeting #46 were reviewed. Grant Gardner noted that the dates indicated on page 3 for ACZISC Meeting #50 in St. John's were incorrect. Claudette LeBlanc stated that the correct dates were 24-25 January 2007. The minutes were approved with the correction. The revised minutes will be posted at <http://aczisc.dal.ca/46min.pdf>.

### 3. **STATUS OF ACTION ITEMS**

The Action Items from Meeting #46 were reviewed and will be reported under the relevant agenda item. The Action Items were either carried out or are in progress.

### 4. **UPCOMING ACZISC MEETINGS**

The upcoming ACZISC meetings are scheduled for:

**31 May - 1 June 2006 (revised date): ACZISC Meeting #48, Halifax, NS**

**20-21 September 2006: ACZISC Meeting #49, Charlottetown, PEI**

**24-25 January 2007 (revised date): ACZISC Meeting #50, St. John's, NL**

**16-17 May 2007: ACZISC Meeting #51, Fredericton, NB**

### 5. **ACZISC ADMINISTRATION AND OPERATION**

**ACZISC MEMBERSHIP:** The following changes to ACZISC membership were announced:

- **Fisheries and Oceans Canada:** Tim Anderson will be retiring from DFO this spring. He has been an ACZISC member since February 1997. Mike Butler thanked Tim for his support and advice over the years and invited him to participate in future meetings as an 'illustrious alumnus'. Tim stated that he had both enjoyed and benefited from his participation in the ACZISC. He added that he would ensure that a replacement was identified prior to his departure.
- **Natural Resources Canada:** Tony Turner has replaced Cameron Wilson who stepped down in September 2005 as the GeoConnections member. Tony joins Bob Taylor, GSC Atlantic and Jacques Grondin, Geomatics Canada in representing NRCan on the ACZISC.

Mike added that both Agriculture and Agri-Food Canada and Health Canada were potential new members of the ACZISC. He welcomed representatives of the departments: Dr. Dolores Durant (AAFC) and Dr. Jane Macdonald (HC).

An up-to-date list of ACZISC members is attached.

**ACZISC BUDGET, FINANCIAL REPORT AND FUNDING:** Financial documents were distributed and reviewed: the ACZISC Association 2005-2006 Budget/ Financial Report; and the Membership Dues/Revenue Summary (copies attached). Mike Butler reported that some of the 2005-2006 dues have not been paid to date, resulting in cash flow problems. He added that there would be a negative carry forward balance to next fiscal year and that the Board of Directors is very concerned about the financial situation.

Paul Earnshaw stated that Formation Environment, DND would be taking over funding of the ACZISC from Trinity. This should speed up payment of dues by DND in the future.

Some members asked that they be invoiced for their 2006-2007 dues immediately.

The Secretariat is spending more time working on contracts to earn revenue for the ACZISC to supplement membership dues. The current contracts are:

- **International Ocean Institute - Canada:** The \$50K + expenses contract (1 September 2005 to 31 August 2006) with the ACZISC is for Mike Butler to serve as Director of IOI-Canada. This is a half time position. IOI-Canada, based at Dalhousie University, is one of 25 centres around the world. The headquarters are located in Malta. Currently the major activity of IOI-Canada is to organize and deliver the 8-week IOI Training Programme on Ocean

Governance: Policy, Law and Management. Several ACZISC members and associates participate as lecturers. Information on IOI-Canada and the Training Program is available at <http://internationaloceaninstitute.dal.ca>.

- **Study on the Economic Impact of the Ocean Technology Industry in Atlantic Canada and Potential Public Sector Demand for Ocean Technologies in Canada**: An unsolicited proposal was submitted in December 2004 to ACOA by the ACZISC Secretariat in collaboration with Canmac Economics Ltd. The ACZISC portion of the \$80K contract is \$20.4K (\$7,650 in 2004-2005 and \$12,750 in 2005-2006) + expenses. The Study has two components: one section (Volume 1), carried out by Canmac Economics, deals with the economic importance of the industry in the region and its principal markets; the second section (Volume 2), carried out by the ACZISC Secretariat, focuses on business opportunities with the federal government and procurements by individual departments and agencies. The report will be completed in April. Copies will be made available to ACZISC members.
- **National Secretariat of the Ocean Management Research Network (OMRN)**: \$7K was paid to the ACZISC in 2005-2006 by the OMRN National Secretariat, based at Saint Mary's University, for staff support. In addition, travel expenses are covered, including participation in the 2005 National OMRN Conference (29 Sept – 1 Oct in Ottawa).

Potential contracts include:

- **Overview of Current Governance in the Bay of Fundy/Gulf of Maine - Transboundary Collaborative Arrangements and Initiatives**: This proposed project for DFO is a comprehensive synopsis of existing governance and management mechanisms in the Bay of Fundy/Gulf of Maine area. The ACZISC Secretariat would be responsible for the Geomatics/Infomatics component (\$4K) and Project Management (\$2K). The total contract amount is \$21K. The project would be carried out in collaboration with the Marine and Environmental Law Institute (MELI), Dalhousie University.
- **Assessment of Data Sharing Requirements for Production of a Dynamic Ocean Use Atlas**: This proposed project for DFO, by CEF Consultants in association with the ACZISC Secretariat, would result in a needs assessment with separate technical and policy/management components. The goal would be to identify the needed information and the associated data links that would contribute to the establishment of a dynamic ocean use atlas for the Scotian Shelf. The Secretariat's component of the project would be \$1.5K.

Mike stated that the Secretariat had submitted grant applications to the NB Environmental Trust Fund and the Gulf of Maine Action Plan Grants Program.

Members suggested other options/relationships which could be pursued, including:

- New England Governors/Eastern Canadian Premiers (NEG/ECP)
- Canadian Council of Fisheries and Aquaculture Ministers (CCFAM)
- Canada/US Northeast Regional Oceans Council; the Canadian members of the Council are the members of CCFAM
- Regional Committee on Ocean Management (RCOM), which may transform into the regional committee for implementation of the Oceans Action Plan – Phase 2
- Public Security and Emergency Preparedness Canada.

***ACTION 47.1: If applicable, members to pay outstanding 2005-2006 membership dues ASAP***

***ACTION 47.2: Members to notify the Secretariat if they would like to receive an invoice for their 2006-2007 dues ASAP***

**ACTION 47.3:** *Members to review the ACZISC Association budget/financial report for 2005-2006 (attached) and provide comments to the Secretariat*

**ACTION 47.4:** *Secretariat to prepare a draft 2006-2007 ACZISC Association budget and distribute it to the ACZISC and the Association Board of Directors for comment*

**ACTION 47.5:** *Paul Earnshaw to discuss the possibility of a relationship between the ACZISC and Public Security and Emergency Preparedness Canada*

**ACTION 47.6:** *Secretariat to continue discussions with Mike Warren and other provincial reps the possibility of a relationship between the ACZISC and the New England Governors and the Eastern Canadian Premiers vis-à-vis their resolutions on Energy, Oceans, and the Environment*

**COMMUNICATION:** Mike Butler reviewed the main 'communication tools' for the ACZISC:

- **Coastal Update:** The e-newsletter is distributed each month to several recipients worldwide (3852 as of January 2006). Approximately 80% are from Canada and 60% from Atlantic Canada. The Coastal Update is available on the ACZISC website at <http://aczisc.dal.ca/new.htm>.
- **ACZISC Meetings:** The meetings and, in particular the roundtable section, are considered by meeting participants to be a great source of 'intelligence'. The roundtable reports are available in PDF format on the website - see **Coastal Activities in Atlantic Canada** at <http://aczisc.dal.ca/docs.htm>.
- **Website:** The website - <http://aczisc.dal.ca> - is updated on a weekly basis. It includes information on the ACZISC, a Search function, the Atlantic Coastal Information Portal (the latest version of the Database Directory), the Inventory of Coastal Mapping Projects, the Atlantic Coastal Community Profile, and links to Maps and Imagery Online, Documents, Conferences, Resources for Students and Teachers, and Related Programs. Claudette LeBlanc stated that she was no longer able to generate user stats directly since the ACZISC website was relocated to a new server at Dal last spring. The move was necessary because the previous server had become obsolete. Website user stats are available through Dal but a one-time fee (~\$150) is charged to set up accounts to generate website user stats. An ACZISC account will be set up as soon as the financial situation improves.
- **Annual Report:** The 2004-2005 ACZISC Annual Report was prepared and distributed to members. It is available on the website - <http://aczisc.dal.ca/docs.htm> - in PDF format. The Annual Report is an effective briefing tool on the ACZISC.

Mike asked that participants communicate with the Secretariat with 'bright' ideas and suggestions for improving current communication tools or adding new ones.

**ACTION 47.7:** *Participants to provide the Secretariat with 'bright communication ideas'*

**ACZISC WORKPLAN:** The 2005-2006 ACZISC Workplan was distributed. Members reviewed and discussed the status of activities and deliverables, including the reduced number of person days on ACZISC activities as a result of contract work. Mike also brought to their attention the list of ACZISC meeting presentation/discussion topics, appended to the Workplan.

Members were asked to provide additional comments and suggestions. Mike stated that a draft 2006-2007 workplan would be prepared and distributed to ACZISC members and the Association Board of Directors for comment.

***ACTION 47.8: Secretariat to prepare a draft 2006-2007 ACZISC Workplan and distribute it to the ACZISC and the Association Board of Directors for comment***

**ACZISC ADVISORY COMMITTEE:** Mike Butler stated that the Advisory Committee was established to provide advice and guidance to the Secretariat, particularly with regard to time-sensitive issues. It consists of a representative from each sector represented on the Committee: academia (TBA); federal departments (Carol Ann Rose); the private sector (Brent Rowley); provincial governments (Justin Huston, chair); and the Secretariat (Mike Butler). An Executive Committee meeting was last held on 15 September 2005.

**ACZISC ASSOCIATION:** Mike Butler reported the following:

- The ACZISC Association was registered under the NS Societies Act on 24 November 2003. It was established to act as the fiscal agent for the ACZISC Committee.
- The Directors of the Association are: Norval Collins, Brad Fay, Grant Gardner, Randy Gillespie, and Brent Rowley (chair of the Board).
- The 7<sup>th</sup> Board of Directors meeting was held on 18 January 2006 at the ACZISC Secretariat. Discussions focused primarily on the budget and funding. The Board is very concerned about the ongoing 'instability' of funding for the ACZISC.
- The 8<sup>th</sup> meeting of the Board of Directors will be held prior to ACZISC Meeting #48 (31 May - 1 June 2006).
- The 2<sup>nd</sup> Annual General Meeting of the Association will be held in Halifax, in conjunction with ACZISC Meeting #48.

***ACTION 47.9: Secretariat to organize the 7<sup>th</sup> meeting of the ACZISC Association Board of Directors prior to ACZISC Meeting #48***

***ACTION 47.10: Secretariat to organize the 2<sup>nd</sup> AGM of the ACZISC Association in conjunction with ACZISC Meeting #48***

## **6. PRESENTATIONS**

The following presentations were made:

- **National Land and Water Information System – NLWIS**  
*Presenter:* Dolores Durant - [durantd@agr.gc.ca](mailto:durantd@agr.gc.ca), Service Manager, National Land and Water Information Service, Agriculture and Agri-Food Canada, Ottawa, ON
- **Quoddy - Protecting an International Treasure**  
*Presenter:* Art MacKay - [artmackay@scep.org](mailto:artmackay@scep.org), Executive Director, St. Croix Estuary Project, St. Stephen, NB
- **Serving GIS Data to non-GIS Users with CARIS OpenCite**  
*Presenter:* Bernie Connors - [bernie.connors@gnb.ca](mailto:bernie.connors@gnb.ca), GIS Manager, NB Department of the Environment and Local Government, Fredericton, NB

The presentations are available at <http://aczisc.dal.ca/docs.htm#ACZISC>.

## 7. **COINATLANTIC: Bridging Geospatial Initiatives in Atlantic Canada**

Mike Butler reported that a workshop was held yesterday to discuss issues related to 'building' COINAtlantic, including bridging the geospatial initiatives in Atlantic Canada and technical approaches for a sustainable geospatial infrastructure. The following presentations were made at the workshop:

- **Eastern Scotian Shelf Integrated Management (ESSIM) Initiative: Information and Data Sharing Requirements**  
*Presenter:* Tim Hall - [halltj@mar.dfo-mpo.gc.ca](mailto:halltj@mar.dfo-mpo.gc.ca), Head, Oceans Management Section, Oceans and Habitat Branch, DFO Maritimes Region, Dartmouth, NS
- **St. Lawrence Global Observatory - SLGO**  
*Presenter:* Paul Bellemare - [bellemarep@dfo-mpo.gc.ca](mailto:bellemarep@dfo-mpo.gc.ca), SLGO Steering Committee and Director, CHS QC Region, Mont-Joli, QC
- **Creating a SmartBay in Placentia Bay, Newfoundland**  
*Presenter:* Tim Anderson - [andersont@dfo-mpo.gc.ca](mailto:andersont@dfo-mpo.gc.ca), A/Division Manager, Oceans Program, Oceans and Habitat Management Branch, DFO NL Region, St. John's, NL
- **COINAtlantic - Technical Approaches for a Sustainable Geospatial Infrastructure**  
*Presenter:* David McIlhagga - [dmcilhagga@dmsolutions.ca](mailto:dmcilhagga@dmsolutions.ca), President, DM Solutions Group, Ottawa, ON
- **Sharing Data in the Gulf of Maine** (attached)  
*Presenter:* Michael Butler, ACZISC Secretariat

The presentations are available at <http://aczisc.dal.ca/docs.htm#ACZISC>.

The following is a summary of key discussions points:

Mike Butler: COINAtlantic is being proposed to facilitate information and data transactions in Atlantic Canada in support of integrated coastal and ocean management and the ICOM Community of Practice.

Marianne Janowicz: The implementation and 'bridging' of these geospatial initiatives would provide a valuable framework to enable ICOM.

Justin Huston: From a NS perspective, COINAtlantic would be very useful because it would 'interface' data from several regions relevant to the Province: ESSIM, GoM and GoSLIM.

Mike Butler: What is needed to implement COINAtlantic?

Paul Bellemare: The issues that impede the implementation COINAtlantic and other similar initiatives are not technology-related. They relate to governance: people, policy and governments.

Geoff Lewis: Cost can be an impediment to sharing data and information.

Paul Bellemare: Larger data sharing exercises such as the SLGO are a viable option if done collaboratively. The cost of information and data sharing can be built into large data projects.

Don Hogan: Are there lessons that can be learned from Google Earth that combines satellite imagery, maps and Google Search to provide geographic information about the world -

<http://earth.google.com> ?

David McIlhagga: Google Earth is becoming very powerful. It has just become part of the Open Geospatial Consortium (OGC) - <http://www.opengeospatial.org>. World Wind, developed by NASA, is another exiting development. It lets you zoom from satellite altitude into any place on Earth in 3D - <http://worldwind.arc.nasa.gov>.

Dolores Durant: The Atlas of Canada is another good example of zooming capabilities - <http://atlas.gc.ca>.

Richard Eisner: Data integration should be one of the functions of COINAtlantic.

Justin Huston: A role for COINAtlantic could be to develop techniques for merging socio-economic data (e.g., Community Accounts) and physical/oceanographic data to meet societal needs. COINAtlantic should also provide access to best management practices and identify the

ICOM initiatives in the region, including contact people and their expertise.

David McIlhagga: A catalyst for implementing COINAtlantic is to create 'need' by identifying common issues and problems. This can be used as a driver. He volunteered to write a 'white paper' with ideas and suggestions to facilitate the building/ implementation of COINAtlantic.

Trevor Rankin: User needs is the focus of GeoConnections Phase 2. A business case will have to be made for COINAtlantic if GeoConnections support is planned. Don Hogan added that he would meet with the Secretariat to review ACOA support for a business plan.

Justin Huston: COINAtlantic could tap into existing initiatives, which have already identified their needs.

Gary Rockwell: A lot of the agencies and groups sitting around the table who want to make their data available would sign on. The users will decide how to use the data and add value.

David McIlhagga: It would help to have more users sitting around the table.

Tim Hall: A geographic focus is needed. The ACZISC and DFO Oceans could discuss collaboration between ESSIM and COINAtlantic re data and information exchange for ESSIM.

Mike circulated copies of selected references re user needs studies of relevance to ICOM (attached).

***ACTION 47.11: David McIlhagga, DM Solutions, to prepare a 'white paper' ASAP with ideas and suggestions to facilitate the building/ implementation of COINAtlantic***

***ACTION 47.12: Secretariat and Don Hogan to discuss possible ACOA funding to develop a COINAtlantic Implementation / Business Plan***

***ACTION 47.13: Secretariat and DFO to continue discussing the possibility of a partnership between COINAtlantic and the ESSIM Initiative re data and information exchange for ESSIM***

## **8. ROUNDTABLE REVIEW OF COASTAL ACTIVITIES and UPDATES ON ACZISC RELATED PROGRAMS**

**GOVERNMENT OF NEW BRUNSWICK**: Marianne Janowicz, NB Department of Environment and Local Government, reported the following:

- **SWNB Marine Resource Initiative**: The intent of this initiative is to establish a planning framework for activities in the lower portion on the New Brunswick Bay of Fundy. Phase 1, which was developing a process for planning, has been completed. The next step is consultation and the engagement of stakeholders. Participants in Phase 1 included the NB Department of Agriculture, Fisheries and Aquaculture (DAFA) and Fisheries and Oceans Canada (DFO) as the leads, the NB Department of the Environment and Local Government (DELG) and stakeholders chosen by the Minister of DAFA. The guiding principle of Phase 1 was:  
"The planning process should consider the ecosystem as a whole. It should be action-oriented and financial gain should not be the driving force. Participants must develop a common, balanced vision which respects a healthy ecosystem. This will result in healthy, vibrant coastal communities."
- **Submerged Lands Policy**: The NB Department of Natural Resources (DNR) is presently working on developing a Submerged Lands Policy.
- **Bay by Bay Management of Mollusc Aquaculture**: This initiative by DAFA and DFO is aimed at streamlining the environmental assessment regulatory process for off-bottom molluscan lease approval. This was first initiated as a pilot project in 2004 in Tabusintac and Richibucto.
- **Beach Users Working Group**: Ongoing public concern regarding the illegal occupation of beaches by the aquaculture and the fishing industry in Charlotte County for storage and

construction of equipment on beaches led to the creation of the Beach Users Working Group (BUWG) in late 2003. The BUWG is composed of one person from each of the three NB departments: DNR, DAFA, and DELG. The intent is to identify beaches that can withstand use by the aquaculture industry, and conditions of use that would protect the ecological integrity and the aesthetics of the area and satisfy public concerns. The BUWG is presently reviewing several options for controlling and managing usage of the beaches. It is anticipated that a mechanism will be in place later in 2006 to fulfill the objectives of the working group.

- Proposed Musquash MPA: On 9 June 2005, DFO announced the Gazette I of the proposed Musquash Marine Protected Area Regulation under the Oceans Act. The Province is presently finalizing its comments on the Regulation and is anticipating that an agreement on management of the area will be signed soon.
- Protected Natural Areas: The NB Department of Natural Resources has a Protected Natural Areas Act and under it approximately 7 sites have been designated as "fine filter areas". Many of the fine filter areas that have thus far been designated are coastal properties or islands. Recommendations from a Scientific Advisory Committee determine the amount of protection at these sites.
- Oceans Strategy: Under the Oceans Strategy of the Oceans Act, it was determined that there should be coordinators in place in each jurisdiction to help the provinces work with the Federal government and to deliver its agenda on the Oceans Strategy. The NB Department of Agriculture, Fisheries and Aquaculture (DAFA) has signed an agreement with DFO for this coordinator to undertake a number of tasks related to the implementation of the Strategy and to assist the Province in providing input into the second phase of the Oceans Action Plan.

**GOVERNMENT OF NOVA SCOTIA**: Justin Huston, Agriculture and Fisheries, reported the following:

- Funds have been made available via DFO and EC for a National Programme of Action (NPA) project to identify priority issues related to coastal erosion and salt marsh intrusion and to make the information, aimed at local land use planners, publicly available.
- Efforts are being made to establish a 'coastal hub' for planners. This is still in the planning stage.
- A 'two prong' approach is being used with provincial Directors re coastal zone management in the Province: emphasize the need for better coordination provincially and define goals. A governance structure will be proposed to the DMs. The NS Provincial Ocean Network (PON) has been tasked by the DMs to develop goals.
- Funding is being made available by DFO to hire a coordinator in each province to liaise with the federal government re the Oceans Action Plan.

**FISHERIES AND OCEANS CANADA**: Richard Eisner, Innovation Office, DFO Maritimes Region, reported the following:

- National Distributed Ocean Data System: The objective is to implement a system based on archives that are distributed in the DFO regions.
- The system will focus on the client 'view':
  - Archive: assemble and preserve data
  - Discovery: find the data and information that are available
  - Exploration: determine if the needed data exists
  - Delivery: acquire the data of interest.
- The International Conference on Ocean Biodiversity Informatics is scheduled for 26-28 November 2007 at BIO in Dartmouth. The Conference will be co-organized by the International Ocean Data and Information Exchange (IODE), the International Council for Exploration of the Sea (ICES) and the Ocean Biogeographic Information System (OBIS). See [http://www.iobis.org/Members/brantonb/obi07/OBI07\\_organization\\_call.htm](http://www.iobis.org/Members/brantonb/obi07/OBI07_organization_call.htm).

Dave Duggan, DFO Maritimes Region, Oceans and Habitat Branch, reported the following:

- DFO is working with the NB Government on an implementation agreement for the Musquash

- MPA area of interest.
- A workshop was held at BIO 2 weeks ago with regard to the Ecosystem Overview and Assessment Report (EOAR) for the Atlantic Coast (from the tip of Cape Breton to Cape Sable).
- DFO, in collaboration with NOAA and the National Marine Fisheries Service, will be producing an EOAR for the Gulf of Maine/Bay of Fundy. Next week a workshop will be held in Moncton with regard to the project. Joe Arbour and Maxine Westhead are the DFO leads for this initiative.
- DFO is continuing its work in the Bras d'Or Lakes with regard to the recently completed EOAR. The First Nations are taking a lead on this project.
- The ESSIM Stakeholder Advisory Council (SAC) is reviewing the draft ESSIM Management Plan and considering the feedback received during the public review. It is anticipated that a revised draft of the Plan will be completed by May 2006. The revised draft will be circulated to stakeholders over the spring and summer with a view to approving a final version of the Plan by the end of the year.
- The Atlas of Human Activities on the Scotian Shelf will be released in March in hard-copy format. It will be made available on the WWW later this year.
- The DFO Oceans group met with the ACZISC on 5 January to discuss potential collaboration between ESSIM and ACZISC/COINAtlantic. A project proposal was subsequently submitted by the ACZISC and CEF Consultants for an Assessment of Data Sharing Requirements for Production of a Dynamic Ocean Use Atlas.

Tim Anderson, DFO NL Region, Oceans and Habitat Management Branch, reported the following:

- Marine Protected Areas: Gilbert Bay in Labrador and Eastport in Bonavista Bay, Newfoundland were designated MPAs in October 2005. Celebrations were held at each site with participation from local residents and stakeholder groups, including fisheries interests, aboriginal groups and federal/provincial officials. Tim handed copies of the "Golden Cod", the official newsletter of the Gilbert Bay MPA.
- NL Regional Implementation Committee for Oceans Management: The 1<sup>st</sup> meeting of the Committee took place on 5 December. The purpose of this senior federal/provincial committee (co-chaired federally by the RDG, DFO and provincially by the DM Fisheries and Aquaculture) is to oversee the implementation of Phase I of the Oceans Action Plan and plan for Phase II. Stakeholder engagement will be discussed at the next meeting of the Implementation Committee scheduled for 6 February.
- Gulf of St. Lawrence Integrated Management: Consultations will begin on 31 January in Western Newfoundland in relation to GOSLIM. The intent of the consultations is to inform interest groups on ICZM, the Oceans Action Plan and GOSLIM. Meetings will be held in 5 locations followed by a workshop in March. A deliverable of this process should be the establishment of a stakeholder structure for participating in the future governance of GOSLIM.

Gary Rockwell, Canadian Hydrographic Service - Atlantic, reported on the following:

- Mechanical problems with CCGS Matthew prevented the completion of CHS' end of season program in 2005: the survey of Makkovic Bank for NRCan was not carried out and a planned survey of capelin spawning areas around Cape Freels, NL was also cancelled. This work is now tentatively planned for 2006.
- New charts and new editions have been completed for the Voiseys Bay area of Labrador. The mine is now operational and shipments of ore have begun.
- United Nations Convention on the Law of the Sea (UNCLOS):
  - CHS is preparing a new request for proposals for a multibeam survey around the Grand Banks / Flemish Cap continental margin. The 2005 and 2006 budgets were pooled to allow a better return on investment.
  - The preparations for the Joint Canada / Denmark seismic refraction survey of Lomonosov Ridge are well underway. The work will take place in March 2006.

- Atlantic Tsunami Warning System: Work is proceeding and purchase orders for new sensors have been issued. A website showing real-time and predicted tides for all east coast permanent water level sites is near completion.
- Air Gap for Halifax Bridges: The Port of Halifax, the Halifax Dartmouth Bridge Commission, the Atlantic Pilotage Authority and CHS are working to develop a real-time air gap monitoring system for the two harbour suspension bridges. The arrival of post-panamax container vessels has made it critical to understand the precise clearance under the bridges during vessel passage. The 'steel to steel' clearance is close to 2 metres. GPS systems have been installed on both bridges. The information from the GPS is combined with the tidal data and the vessels air draft to work out a clearance that is used by the harbour pilots to plan the vessel passage.
- Nautical Data International (NDI): There is no change in the status at this time
- Goose Bay CHS Office:
  - Just prior to last fall's federal election call, 5-year funding was announced for the establishment of a new hydrographic office with a Coast Guard vessel for Goose Bay. The objective is to improve charting and search and rescue capabilities on the Labrador coast and to support the Goose Bay economy.
  - The plan calls for the hiring of 8-10 new hydrographers and to equip survey launches with multibeam systems.
  - The mothballed CCG icebreaker Bernier will go into refit. It will have a multibeam system installed and be capable of carrying 2 survey launches.
  - CHS staff and the ship's crew will be sourced from Labrador.
- Canadian Hydrographic Conference 2006: The event is scheduled for 5-9 June at the Westin Hotel in Halifax. Everyone is invited. See <http://www.chc2006.ca>.

**INDUSTRY CANADA**: Geoff Lewis, Energy and Environment Industries Branch, reported the following:

- IC will be participating with other departments and agencies in Oceanology International 2006 on 21-23 March in London, England. See <http://www.canadaoi06.co.uk> for details of Canadian exhibitors, activities etc. Individuals/organizations wishing to be included in activities should contact Geoff – [lewis.geoff@ic.gc.ca](mailto:lewis.geoff@ic.gc.ca). Geoff will be presenting a paper on Integrated Ocean Management and Canada's Oceans Action Plan at the conference on 22 March. The paper, co-authored with Scott Coffen-Smout, DFO, is available at <ftp://starfish.mar.dfo-mpo.gc.ca/oaco/pub/ESSIM/>.
- A strong presence by IC is anticipated at MTS/IEEE Oceans 2006 on 18-21 September in Boston (<http://www.oceans06mtsieeeboston.org>) and at Ocean Innovation 2006 in St. John's in October (<http://www.oceaninnovation.ca>). The Department also hopes to participate in Oceans'06 Asia Pacific on 16-19 May in Singapore (<http://www.oceans06asiapacific.org>), the Canadian Hydrographic Conference 2006 on 5-9 June in Halifax (<http://www.chc2006.ca>), and the Coastal Zone Canada 2006 Conference on 14-18 August in Tuktoyaktuk, NT (<http://www.czc06.ca>).
- Rick Domokos, Senior Director, Marine with Industry Canada in Ottawa has advised that he will be retiring at the end of March. The Ocean Technologies Sector lead for the Department is Leah Clark, Director General, Aerospace, Defence and Marine Branch. Although Geoff is now in the Energy and Environmental Industries Branch (Bruce Bowie, DG), Geoff will continue to cover the ocean and marine industry sectors as well as the energy sector in the Atlantic region until his retirement next December.

**NATURAL RESOURCES CANADA**: Jacques Grondin, Geomatics Canada, reported the following:

- Two papers were recently made available to ACZISC members: "White Paper: Marine Cadastre in Canada's Offshore Area" - <http://aczisc.dal.ca/marcad.pdf> (not for public distribution); and "Introducing the Canada Centre for Cadastral Management" - <http://aczisc.dal.ca/cccm.pdf>.
- Awareness is increasing re the fundamental need for cadastral systems in the establishment

- of property rights.
- Several meetings between DFO and NRCAN have been held in Ottawa with regard to the establishment of a marine cadastre. Both departments have agreed in principle to prepare a Memorandum to Cabinet as part of the Ocean Strategy.
- Additional information on the need for a marine cadastre and the Canada Centre for Cadastral Management's Integrated Cadastral Management and Marine Cadastre is attached.

Trevor Rankin, GeoConnections Secretariat, reported the following:

- The GeoConnections program has recently been renewed for another 5 years. A number of staff positions are being filled and the governance model and advisory committees are being established.
- Two announcements of opportunity have been released to date under the renewed program:
  - Joint Canada-USA spatial data infrastructure project
  - Developing CGDI applications for communities of practice.
 Details of these opportunities and an anticipated schedule of opportunities are available at <http://www.geoconnections.org/CGDI.cfm/fuseaction/opportunities.welcome/gcs.cfm>.
- The GeoConnections mailing list and newsletter provide the latest news on GeoConnections, future opportunities, workshops and training sessions. To register, access <http://www.geoconnections.org/CGDI.cfm/fuseaction/subscribe.welcome/gcs.cfm>.
- GeoTec, scheduled for 18-21 June 2006 in Ottawa, will mark the 100<sup>th</sup> anniversary of the Atlas of Canada. The event will be co-located with the Association of Canadian Map Libraries, the Canadian Cartographic Association, and the International Cartographic Association - <http://www.geoplaces.com/uploads/GeoTecEvent/htm/intro.asp>.

Bob Taylor, Geological Survey of Canada - Atlantic, reported the following:

- Climate Change Program:
  - QuickBird satellite imagery has been acquired for the Bouctouche, NB area (contact: Gavin Manson - [gmanson@nrcan.gc.ca](mailto:gmanson@nrcan.gc.ca)). The imagery is applicable to the study on the Impacts of Sea-Level Rise and Climate Change on the Coastal Zone of Southeastern NB and to habitat studies by the Irving Ecocentre in Bouctouche.
  - Scientists are working on completing the Southeastern NB and the Bras d'Or Lakes Sea Level Rise projects.
  - The Arctic was the focus of most coastal monitoring work in 2005.
  - Plans for 2006 include an extension of the nearshore mapping along the Eastern Shore of NS using new interferometric bathymetric techniques.
- Climate Change Impacts and Adaptation Network (C-CIARN) - <http://c-ciarn.bio.ns.ca>:
  - It is anticipated that the program will end on March 31; however, it may be revitalized in a different form in the future.
  - The C-CIARN Coastal Zone office at BIO is completing its activities, including finishing the website and the climate change adaptation posters for the Gulf of St Lawrence. It is also maintaining a connection with the Gulf of St Lawrence Coalition on Sustainability erosion study.
  - The "Living with Climate Change: Sharing Adaptation Experiences" meeting in Montréal on 2 December was very successful. It featured excellent international presentations on adaptation to climate change by coastal communities. The presentations are available at [http://www.c-ciarn.ca/index\\_e.asp?CalD=40&PgID=133](http://www.c-ciarn.ca/index_e.asp?CalD=40&PgID=133). A webcast is available at <http://events.streamlogics.com/EnvCanada/2005/EN/>.
- Geoscience for Ocean Mapping Program (GOM) - <http://www.gom.nrcan.gc.ca>:
  - The GOM Program will be entering its 2<sup>nd</sup> phase after 31 March 2006. Planning meetings will be held in BC next week.
  - Dick Pickrill, the GOM Program manager, would be interested in presenting an update on the Program at the next ACZISC meeting.
  - John Shaw ([john.shaw@nrcan.gc.ca](mailto:john.shaw@nrcan.gc.ca)) has completed the analysis of multibeam bathymetry collected in Placentia Bay, Newfoundland over the past few years.

- MITE (Metals in the environment) Program - <http://mite.nrcan.gc.ca>:
  - MITE officially ends in March 2006 but more activity is proposed under phase 2 of GOM (contact: Mike Parsons - [miparson@nrcan.gc.ca](mailto:miparson@nrcan.gc.ca)).
  - A recent meeting was held on gold mining and impacts of tailings in the environment. The group is investigating the legacy of historical gold mining and the distribution of contaminants (mercury and arsenic) in nearshore sediment. Field surveys from 2003 - 2005 included sampling from 15 mine sites. Some results of the research will be presented at the Atlantic Geoscience Meeting in Wolfville in early February - see <http://ace.acadiau.ca/science/geol/ags2006/ags2006.html#program>
  - The results of the study have led to the formation of a federal/provincial Historic Gold Mines Advisory Committee. The Committee is looking at potential ecological and human health risks associated with gold mines throughout NS and how to best manage the tailing sites.
  - The Working Group on marine issues is led by Environment Canada - Debby Wallace ([debbie.wallace@ec.gc.ca](mailto:debbie.wallace@ec.gc.ca)).
- Saglek, Labrador: There is renewed interest in the area as it is at the south end of the new Torngat National Park. Results from a sediment transport and study of PCB distribution in the nearshore at the Saglek radar site was completed by Steve Solomon - [ssolomon@nrcan.gc.ca](mailto:ssolomon@nrcan.gc.ca).

***ACTION 47.14: Secretariat to organize a presentation on the Geoscience for Ocean Management Program at ACZISC Meeting #48 (31 May – 1 June in Halifax)***

**ATLANTIC PROVINCES COUNCIL ON THE SCIENCES / MEMORIAL UNIVERSITY:** Grant Gardner, Associate Dean of Science, MUN, reported the following:

- The two Canada Research chairs referenced at ACZISC Meeting #46 – one in Seabed Imaging and Seabed Processes and the other in Marine Biotechnology – have now been approved and will be joining Memorial University this summer.
- Gordon Slade, of One Ocean - <http://www.oneocean.ca>, has developed a proposal for an International Lecture Series on Oceans for Canada. He has support and interest from DFO and others. He hopes to involve the CBC in broadcasting the series based on the model of the very successful Massey Lectures.
- Grant will be briefing the APICS Council on ACZISC activities at the APICS meeting in April. The meeting will be attended by the Deans of Science from all of the universities in Atlantic Canada.

**NATIONAL DEFENCE:** Paul Earnshaw, Formation Environment, Maritime Forces Atlantic, reported the following:

- The MARLANT Operations Area Management Plan discussed at ACZISC Meeting #46 was completed in March. This Plan will now be transitioned into an Environmental Management Plan by the fall of 2006.
- A series of MOUs will be produced to exchange information with OGDs and NGOs.
- DND's UXO (unexploded ordinance) investigation continues via an active Navy program to assess and clean sites.
- MARCOM has produced a marine mammal mitigation document. A contract will be let this week for a manual to assist in identifying marine mammals and the associated training.

**ENVIRONMENT CANADA:** Réal Daigle, Meteorological Service of Canada, provided the following update on the New Brunswick Sea Level Rise Project:

- The goal of the 3-year Climate Change and Sea Level Rise research project is to measure the impacts of climate change and sea-level rise in support of sustainable management, community resilience and the development of adaptation strategies for these impacts.
- The research project is made up of ten components: Sea Level Rise; Coastal Erosion; Storm Surge and Meteorological Modelling; Storm Surge and Meteorological Climatologies; LIDAR

data and Digital Elevation Modelling; Ecosystems; Kouchibouguac National Park; Socio-economic Impacts; Adaptation Strategies; and Integration.

- The project team is pleased to report that the research objectives have been met, with some significant breakthroughs in physical science with regards to Storm Surge Return Periods for the southern Gulf of St Lawrence. A LIDAR-derived Digital Elevation Model will be used to display storm surge related coastal flooding risks for 2, 5, 10, 40 and 100-year events, for both current sea levels and projected sea levels in 2100.
- The research project is now in the report writing phase, with a target release date of June 2006 for the Final Report.
- For details, access the Project website at <http://atlantic-web1.ns.ec.gc.ca/slr/>.

Larry Hildebrand, Sustainable Communities and Ecosystems Division, reported the following:

- EC is reorganizing. The competitiveness and environmental sustainability framework is guiding the process. EC's activities and those of its partners must 'fit' into the Results-based Management and Accountability Framework (RMAF), a management tool for measuring and reporting outcomes throughout life cycle of policy, program or initiative
- Plans are well underway for an ACAP site in Labrador. A meeting will be held in 2 weeks of interested federal departments. Discussions will also take place with the Province and other stakeholders.
- The Canadian Coastal Science and Engineering Association (CCSEA) 2005 Conference was held on 6-9 November 2005 in Dartmouth. The themes were *The State of the Natural and Engineered Coast* and *Future Directions in Nearshore Dynamics*. The very successful Conference was attended by ~130 people. The future of the CCSEA was discussed. Collaboration with the other 'coastal' organizations will be pursued, including the CZCA and the OMRN. LOAs are being developed.
- There is a need to understand the needs of the ICOM Community of Practice. The OMRN and the CZCA are in the early stage of discussion re building an interactive database of ICM initiatives.

**PUBLIC WORKS AND GOVERNMENT SERVICES CANADA:** Michel Goguen, Real Property Services, reported the following:

- Progress is being made with the Way Forward, an initiative led by PWGSC to deliver services smarter, faster and at a reduced cost (<http://www.pwgsc.gc.ca/b2k5/text/index-e.html>).
  - Areas of focus include: acquisitions – standing offers; IM/IT; and Real Property.
  - The challenge is to maintain service levels to clients during the transformation period.
  - The Way Forward emphasizes partnering with the private sector.
  - Leverage strengths for government include experience and historical data.
  - It will take 5-8 years to fully implement.
- Current activities at PWGSC include: multibeam trials; an upgrade of harbour management; and the ongoing monitoring for erosion and sedimentation at the Confederation Bridge.

**COMMUNITY ORGANIZATIONS:** David Boyce, Southeast Environmental Association (SEA), reported the following:

- ACAP Data Sharing Survey: As part of a project under RésEau, SEA surveyed the 14 Atlantic Coastal Action Program (ACAP) groups in early November to: determine the use of electronic data sharing; determine the need for tools to assist electronic data sharing; and to examine the knowledge and use of web-based data sources such as the GeoConnections Discovery Portal. Web-based mapping was identified as the most desirable data access/sharing format. The study is available in PDF format at <http://www.seapei.ca/modules/ACAPDataSharingSurvey/>.
- GeoConnections/PRI Workshops: Last week in Ottawa GeoConnections and the Policy Research Institute (PRI) held two workshops: one on Developing a Community of Practice for Mapping Water Issues; and the other on Geospatial Information Needs for Integrated Land / Marine Management. Concerns raised include standards and capacity building.

Presentations and Workshop reports will be posted on the PRI website in the near future – <http://www.policyresearch.gc.ca>.

- Freshwater for the future - Conference on Freshwater Policy: Hosted by the Policy Research Initiative, the Conference will be held on 8-10 May in Gatineau, QC. The three-day Conference will explore central aspects of freshwater policy, from drinking water to ensuring ecosystem services, and from boundary waters to international development. Details are available at [www.policyresearch.gc.ca](http://www.policyresearch.gc.ca).
- Northumberland Strait Ecosystem Initiative: The Institute of Island Studies at UPEI has scheduled a series of consultations in PEI from 2-8 February to obtain input for the DFO initiative.
- Coordinating Nearshore Monitoring Workshop: The Workshop is scheduled for 7-9 February at BIO. The Clean Annapolis River Project (CARP), the Miramichi River Environmental Assessment Committee (MREAC) and SEA will provide a community perspective on the topic in the Atlantic region section of the agenda. The Southern Gulf of St. Lawrence Coalition on Sustainability will be presenting its work on indicators.

## **UPDATES ON ACZISC RELATED PROGRAMS**

**COASTAL ZONE CANADA ASSOCIATION AND CONFERENCES**: Grant Gardner reported that Coastal Zone Canada 2006 was scheduled for 14-18 August 2006 in Tuktoyaktuk, NT. The theme is *Arctic Change and Coastal Communities*. The intent of the Conference is to raise awareness about the unique challenges faced by residents of the Arctic coastal zone in the face of rapid changes occurring in Arctic marine ecosystems. While the focus is on coastal and ocean issues in the north, contributions from coastal areas around the world are encouraged. Details are available at <http://www.czc06.ca>.

Mike Butler reported that Bob Thwaites had suggested that the ACZISC organize an interactive panel for CZC 2006, similar to the panel that was organized for CZC 2004 in St. John's. He asked that members notify him if they wish to participate in an ACZISC Panel.

***ACTION 47.15: Members to notify the Secretariat if they are interested in participating in an ACZISC panel at the CZC 2006, 14-18 August 2006 in Tuktoyaktuk, NT***

**SOUTHERN GULF OF ST. LAWRENCE COALITION ON SUSTAINABILITY**: David Boyce reported the following:

- The SCSLCS is a not-for-profit coalition of partners whose common purpose is to promote the long-term viability of the Southern Gulf of St. Lawrence region. For information on the Coalition, access <http://www.coalition-sgsl.ca>.
- The Coalition AGM will take place in Miramichi, NB on 13 May 2006.
- The AGM is being held in conjunction with a Workshop and Trade Show entitled "Sustainable and Renewable Energy Technologies in Atlantic Canada", scheduled for 11-13 May. The theme is *Finding the Power to Prosper*. For information on the Workshop, access <http://www.coalition-sgsl.ca/energyworkshop/>.

## **9. ADJOURNMENT**

ACZISC Meeting #47 adjourned at 1630 hrs on Thursday, 26 January 2006.

## **MARINE CADASTRE: THE FOUNDATION FOR PROPERTY RIGHTS INFRASTRUCTURE IN SUPPORT OF GOOD GOVERNANCE AND SUSTAINABLE DEVELOPMENT OF CANADA'S OFFSHORE AREA**

There is an emerging issue related to the good governance of Canada's Offshore Area (Air Space, Ocean Space, and Continental Shelf). In addition, there is an increased awareness in the world that Cadastral Systems underlying rigorous property rights infrastructures are key in enabling good governance and sustainable development of natural resources.

The Oceans Act and Canada's Ocean Strategy require Integrated Management principles to be used to minimize conflict among ocean users. NRCan can play a key role in balancing competing demands for ocean space between resource development and sustainable management and conservation. Strong partnerships between federal and provincial agencies are required as the divisions between federal and provincial jurisdictions are not always clear.

Studies have demonstrated that an effective property rights infrastructure (allocation of rights, regulation of these rights, monitoring of the regulations, and an adjudication process) is essential for good governance and sustainable development. On land, these infrastructures are in place in all developed countries. Furthermore, the World Bank only funds projects in under-developed countries that incorporate land tenure reforms and ensure that a property rights infrastructure will be put in place.

The functions of ocean governance, from a property rights perspective, can be defined as: allocation of rights of use, ownership and stewardship to marine resources, regulation of these rights, monitoring and enforcement of these regulations, provision of effective means to prevent and adjudicate disputes and management of spatial information on which other processes depend. A property rights infrastructure is composed of three distinct systems: a legal survey system to define the extent of rights, a registration system to record the rights, and a management regime to regulate the rights.

NRCan, through the Earth Sciences Sector (ESS) and the Canada Lands Surveys Act, contributes towards the provision of a property rights infrastructure in Canada's offshore area. The application of the Act was extended in 1977 to bring the legal surveys, required for the management and control of offshore resources on Canada Lands, under legislative authority and to facilitate the administration, direction and control of surveys of all Canada Lands. The Canada Lands Survey System (CLSS) serves five property rights regimes established in Canada's ocean space. The system supports the management of resources for two government departments and three joint management boards responsible for managing and issuing rights for oil and gas resources: NRCan, Indian and Northern Affairs Canada (INAC), Canada Nova Scotia Offshore Petroleum Board (CNSOPB), Canada Newfoundland and Labrador Offshore Petroleum Board (CNLOPB), Canada-Yukon.

Many other types of rights are allocated but there is no formal public record and no overall rights structure. There is no overarching way of understanding the administrative, jurisdictional, and property rights infrastructure in Canada's marine areas. The Constitution Act and Oceans Act provide starting points but there is no comprehensive legislation addressing the federal and provincial divide as exists in Australia and the United States.

The Earth Science Sector (ESS) and the Department of Fisheries and Oceans (DFO) have started to work collaboratively to advance the issue at the federal level and develop a strategy for inclusion in phase two of the Oceans Action Plan.

The oceans are a primary resource and if Canada is to continue competing in the global marketplace, there is a need for good stewardship of the resources as well as economic development. Part of the

governance structures will be the institutions, laws, and information-sharing mechanisms that are part of a marine property rights infrastructure.

ESS can lead in an integrated ocean management framework where the issues relate to property rights infrastructures and the effective management of spatial information. There is a need for a more comprehensive information strategy that includes a property rights infrastructure as an essential element of an eventual Marine Geospatial Data Infrastructure. Such an integrated information strategy, now becoming known internationally as a Marine Cadastre, would provide a mechanism to integrate property rights data with other environmental and economic data for better decision-making.

NRCan has been a key participant in shaping this initiative under Canada's Ocean Action Plan. The initiative is seen as an opportunity to apply NRCan scientific expertise and technology and its outcomes will contribute to Canada's offshore resource-related regulatory and management objectives.

### **THE CANADA CENTRE FOR CADASTRAL MANAGEMENT (CCCM): INTEGRATED CADASTRAL MANAGEMENT AND MARINE CADASTRE**

In March 2003, the CCCM defined the following objectives for the Canada Lands Survey System Knowledge Based Service:

- Establish networks of excellence for integrated cadastral information management
- Develop a strategy for the development of a marine cadastre
- In co-operation with Indian and Northern Affairs Canada (INAC), reform cadastral management processes through the integration of the Indian Lands Registry System (ILR) and the Canada Lands Survey Records (ILR/CLSR).

Networks of Excellence for Integrated Cadastral Management:

- One of the action items resulting from these objectives was to develop a National Delivery Model for Integrated Cadastre Management.
- For its clients to realize the benefits of integrated cadastral management, CCCM must adopt a national standard business process, standard information management technology and a standard data model. This will allow CCCM to deliver the base cadastral information required for integrated cadastral management on Canada Lands.
- CCCM is now in the 2<sup>nd</sup> year of a three-year project to develop and implement the Integrated Cadastre Management. By the end of March 2006 the following components will be completed:
  - Design and implementation of the common data model; data maintenance processes and tools; and data access facilities
  - Testing and installation of common GIS technology
  - Specialized software training
  - Design of technology and systems for the ILR/CLSR Integration Project.
- In the 3<sup>rd</sup> year of the project CCCM will be focusing on the development of its E-Environment for land survey projects. This includes: On-line survey instructions; E-Land Survey Standards; E-Plan Submissions - Digital survey returns; E-Plan Check; and E-Plan Recording.
- The E-Environment will be implemented through a web interface allowing land surveyors to conduct the complete land survey project in the digital environment.