

MINUTES OF ACZISC MEETING #44

Atlantic Coastal Zone Information Steering Committee

Date: Wednesday and Thursday, 19-20 January 2005

Location: Cambridge Military Library
Royal Artillery Park, Halifax, Nova Scotia

PARTICIPANTS (¹ACZISC member; ²Advisory Committee member, ³ Director, ACZISC Association)

| Name | Affiliation | Tel. No. |
|-------------------------------------|--|-----------------|
| Tim Anderson ¹ | Fisheries and Oceans Canada, NL Region, Oceans and Habitat Branch | 709-772-2852 |
| Cdr Josh Barber ¹ | National Defence, Trinity JOSIC | 902-427-0550 |
| Paul Boudreau | Fisheries and Oceans Canada, Habitat Management Division | 902-426-7464 |
| David Boyce ¹ | Community Organizations, Southeast Environmental Association | 902-838-3351 |
| Bob Branton | Fisheries and Oceans Canada, Marine Fish Division | 902-426-3537 |
| Michael Butler ² , Chair | ACZISC Secretariat | 902-494-1977 |
| Norval Collins ^{1,3} | Private sector, CEF Consultants | 902-425-4802 |
| Réal Daigle ¹ | Environment Canada, Meteorological Service of Canada | 506-851-6743 |
| Ken Dominie ¹ | Government of Newfoundland and Labrador, Department of Environment and Conservation | 709-729-2559 |
| Dolores Durant | Natural Resources Canada, GeoConnections Secretariat (alternate for Cameron Wilson ¹) | 613-992-4333 |
| Richard Eisner | Fisheries and Oceans Canada, Program Planning and Coordination Office | 902-426-7564 |
| Brad Fay ³ | Brad Fay and Associates | 902-477-0946 |
| Patrick Gagnon | Hyperspectral Data International Inc | 902-461-2161 |
| Grant Gardner | APICS ¹ and Memorial University of Newfoundland | 709-737-8155 |
| Michel Goguen | Public Works and Government Services Canada (alternate for Bill Blight ¹) | 506-851-6784 |
| Ross Graham | National Defence, Defence Research and Development Canada - Atlantic | 902-426-3100 |
| Doug Gregory | Fisheries and Oceans Canada, Data Management | 902-426-8931 |
| Russ Henry ¹ | Government of New Brunswick, Department of Agriculture, Fisheries and Aquaculture | 506-457-6922 |
| Darren Hicks ¹ | Government of Newfoundland and Labrador, Department of Natural Resources | 709-729-6584 |
| Don Hogan | Atlantic Canada Opportunities Agency, Policy and Coordination | 709-772-2954 |
| Bill Horne ¹ | Environment Canada, Environmental Emergencies Section | 902-426-6196 |

PARTICIPANTS (cont'd)

| | | |
|--------------------------------|---|--------------|
| Justin Huston ^{1,2} | Government of Nova Scotia, Department of Agriculture and Fisheries | 902-424-2996 |
| Martin Kaye | Bay of Fundy Marine Resource Centre | 902-638-3044 |
| Claudette LeBlanc | ACZISC Secretariat | 902-494-1977 |
| Geoff Lewis ¹ | Industry Canada, Energy and Marine Branch | 902-426-9475 |
| Ed Light ¹ | Government of Nova Scotia, Service Nova Scotia and Municipal Affairs | 902-424-0173 |
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| Charles Mason | Fisheries and Oceans Canada, Systems Administration and Operations | 902-426-9964 |
| Rick Mayne | National Defence, Trinity, MSOC | 902-427-0550 |
| John O'Neill | Fisheries and Oceans Canada, Science Informatics Section | 902-426-5823 |
| Gary Rockwell | Fisheries and Oceans Canada, Canadian Hydrographic Service - Atlantic | 902-426-2432 |
| Carol Ann Rose ^{1,2} | Fisheries and Oceans Canada, Maritimes Region, Oceans and Habitat Branch | 902-426-2065 |
| Neil Ross | APICS ¹ and National Research Council | 902-426-8402 |
| Brent Rowley ^{2,3} | Private Sector, EIT Group | 902-420-1435 |
| Andy Sherin | Natural Resources Canada, Geological Survey of Canada | 613-995-0525 |
| Tobias Spears | Fisheries and Oceans Canada, Informatics Branch | 902-426-4849 |
| Bob Taylor ¹ | Natural Resources Canada, Geological Survey of Canada - Atlantic | 902-426-7736 |
| Eric Theriault ¹ | Canada – NS Offshore Petroleum Board | 902-496-0742 |
| Rob Thompson ¹ | Parks Canada, Atlantic Service Centre | 902-426-3445 |
| LCdr Bob Thwaites ¹ | National Defence, Defence Research and Development Canada - Atlantic | 902-426-3100 |
| Kim Tofin | DM Solutions Group | 613-565-5056 |
| David Wootton | Dalhousie University, Maritime Activity and Risk Investigation Network (MARIN) Research Group | 902-494-6413 |

1. *WELCOME and INTRODUCTION OF PARTICIPANTS*

Mike Butler, ACZISC Secretariat, called ACZISC Meeting #44 to order at 0830 hrs on Thursday, 20 January 2005. He welcomed members and observers and thanked Cdr Josh Barber, DND Trinity, and LCdr Bob Thwaites, DRDC Atlantic, for making arrangements for the facilities and for providing lunch. A roundtable introduction of all of the participants followed.

2. *ADOPTION OF AGENDA, AND REVIEW AND APPROVAL OF MINUTES FOR MEETING #43*

The provisional Agenda for ACZISC Meeting #44 was reviewed. Mike Butler suggested that the Task Group and Working Group reports be moved to follow 'Item 4 – Upcoming ACZISC Meetings' to accommodate the travel schedule of Andy Sherin, Chair of the COINAtlantic Task Group. The agenda was approved as revised (attached).

The draft minutes of ACZISC Meeting #43 were reviewed. Tim Anderson reported a spelling error on page 3: the title "ACZISC ADMISTRATION AND OPERATION" should read "ACZISC ADMINISTRATION AND OPERATION". Darren Hicks requested that a sentence be removed from his roundtable report on page 13, *i.e.* "Parks Canada is supporting the community-led initiative."

The minutes were approved with the above corrections. The revised minutes will be posted on the ACZISC website at <http://aczisc.dal.ca/docs.htm>.

3. **STATUS OF ACTION ITEMS**

The Action Items from Meeting #43 were reviewed and will be reported under the relevant agenda item. All of the Action Items were either carried out or are in progress.

4. **UPCOMING ACZISC MEETINGS**

The upcoming ACZISC meetings are scheduled for:

ACZISC Meeting #45: 18-19 May 2005, Charlottetown, PEI

ACZISC Meeting #46: 14-15 September 2005, St. John's, NL

ACZISC Meeting #47: 18-19 January 2006, Fredericton, NB

ACZISC Meeting #48: 17-18 May 2006, Halifax, NS

5. **ACZISC TASK GROUP and WORKING GROUP REPORTS**

COINATLANTIC TASK GROUP: Andy Sherin, chair of the COINAtlantic Task Group, reported on the 2-hour COINAtlantic session held on the previous day (Wednesday, 19 January 2005):

- The COINAtlantic session was a follow-up to the one-day COINAtlantic Forum held in Fredericton on 15 September 2004. Thirty people participated in Halifax, of which only six had attended the Fredericton Forum.
- The objective of the session was to further clarify COINAtlantic and to identify a set of actions to initiate the development of an Action Plan.
- Participants discussed COINAtlantic in plenary and identified priority issues. The issues were then discussed individually in more detail in concurrent issue group sessions. (Issue group session rapporteurs agreed to email a summary of their discussions to Claudette.)
- Following this, the issue group conclusions were reported to all participants in a plenary session. The issues and discussions were as follows:

Vision and Principles - What can COINAtlantic do?

- Be more than a portal which allows the discovery of, and access to, information
- Address various user communities with different levels of security/data access
- Be 'profitable' to all users
- Advocate increased access to all data for all people

Business Model - Operational Entity

- Look at existing models and select model (immediate action)
- Develop prototype for COINAtlantic, including business and funding

Geographic Scope / Relationship to Other Initiatives

e.g., GeoNova, GOMMI, Placentia Bay

- Understand other similar groups and how they are organized (immediate action)
- Determine how to coordinate activities between COINAtlantic and other groups (immediate action)
- Know what makes COINAtlantic unique

Technical Issues / Architecture

- Educate providers on best practices to make data accessible (GeoConnections)
- Identify the data providers (immediate action)
- Select the COINAtlantic website infrastructure

User Requirements

Getting to the users, education and outreach

- Integrate into school curriculum
- Educate middle management decision-makers
- Maintain user friendliness
- ACZISC ICM Working Group to consider 'user pull' for COINAtlantic through the development of an ICM Community of Practice (immediate action)
- Initiate an inventory of ICM initiatives in the region (immediate action)

Andy Sherin and the Secretariat agreed to analyze the conclusions and incorporate them in the COINAtlantic document. The document will then be distributed for comments to members and the other participants of the Fredericton and Halifax COINAtlantic sessions.

ACTION 44.01: *Priority issue group rapporteurs to email a summary of their priority issue group session to Claudette LeBlanc – leblancc@ca.inter.net by 31 Jan 2005*

ACTION 44.02: *Andy Sherin, Task Group Chair, and Secretariat to analyse and incorporate the results of the Halifax COINAtlantic session in the document "COINAtlantic – From Concept to Implementation". Secretariat to email the revised document to participants by 28 Feb 2005*

ACTION 44.03: *Participants to review the COINAtlantic document and provide the Secretariat with suggested revisions, additions, etc. by 18 March 2005*

GEOMATICS WORKING GROUP: Dolores Durant reported on the ACZISC Geomatics Working Group meeting held from 1500-1600 hrs yesterday (Wednesday, 19 January):

- Dolores presented the prototype of the Atlantic Coastal Information Portal (ACIP), designed to replace the Atlantic Coastal Database Directory. She reviewed various functions, including data search, organizations search, services search and create a map.
- ACIP will become the Atlantic window on the GeoConnections Discovery Portal (GDP). The GDP covers the entire world. It is the prime discovery and access component of the Canadian Geospatial Data Infrastructure (CGDI).
- ACIP can be considered as a stepping-stone to building COINAtlantic.
- Future options could include: a search function for regulations related to specific activities; a user guest book; and a track usage function.
- GeoConnections provided the services of a programmer to the ACZISC to build ACIP.
- Feedback re the design of ACIP, e.g., the different search options, is needed from all ACZISC members. An email will be sent to that effect once the prototype has been completed.

ACTION 44.04: *Claudette LeBlanc to email participants the ACIP URL with a request for comment, etc. on the ACIP prototype and its functionality.*

ACTION 44.05: *Participants to review ACIP and provide feedback to Dolores Durant - ddurant@nrca.gc.ca*

On behalf of the ACZISC, Mike Butler thanked GeoConnections for its support in building the Atlantic Coastal Information Portal (ACIP).

INTEGRATED COASTAL MANAGEMENT WORKING GROUP: Mike Butler reported on the ACZISC ICM Working Group meeting held yesterday (Wednesday, 19 January):

- Andy Sherin briefed the ICM WG participants on COINAtlantic. He stated that feedback was required from the ICM community to plan and develop COINAtlantic.
- It was suggested that a workshop be held in conjunction with ACZISC Meeting #45 (18-19 May in Charlottetown) to initiate the process of identifying the 'ICM Community of Practice' in Atlantic Canada and to document its requirements vis-à-vis COINAtlantic.
- Justin Huston suggested that the Gulf of Maine NGO Directory could be used as a model to document the ICM Community of Practice in Atlantic Canada. The Directory is a database of more than 600 organizations with an interest in the Gulf of Maine and the Gulf of Maine watershed. It can be searched by watershed, by function of the organization, and by issue(s) of interest. It can be updated online.
- Mike Butler added that 'Baseline 2000', produced for the Coastal Zone Canada Association, includes a listing of ICM efforts around the world. The Canadian component, updated in 2003 by Larry Hildebrand, could be used as a starting point.
- Tim Anderson added that draft terms of reference for the ICM Community of Practice should be prepared for review at the Workshop.
- Definitions:
 - Communities of Practice are groups who share concerns or problems and have common requirements (GeoConnections e-newsletter - 4 June 2004 issue).
 - ICM can be defined as a continuous and dynamic process by which decisions are taken for the sustainable use, development and protection of coastal and marine areas and resources. ICM acknowledges the interrelationships that exist among coastal and ocean uses and the environments they potentially affect, and is designed to overcome the fragmentation inherent in the sectoral management approach. ICM is multi-purpose oriented, it analyzes and addresses implications of development, conflicting uses, and interrelationships between physical processes and human activities, and it promotes linkages and harmonization among sectoral coastal and ocean activities (*Cicin-Sain and Knecht, 1998*).
- The participants provided a brief outline of ICM activities in their jurisdiction.

ACTION 44.06: Secretariat to organize a workshop on 18 May in Charlottetown in conjunction with ACZISC Meeting #45 (19 May) to initiate the process of identifying the 'ICM Community of Practice' in Atlantic Canada and to document its requirements vis-à-vis COINAtlantic

ACTION 44.07: Secretariat to prepare draft terms of reference for the 'ICM Community of Practice' in Atlantic Canada for review at the Workshop

6. ACZISC ADMINISTRATION AND OPERATION

ACZISC ADVISORY COMMITTEE: The Advisory Committee was established to provide advice and guidance to the Secretariat. It consists of a representative from each sector represented on the Committee: academia (Lois Whitehead); federal departments (Carol Ann Rose); private sector (Brent Rowley); provincial governments (Justin Huston, chair); and the Secretariat (Mike Butler).

Mike Butler reported that a meeting of the Advisory Committee scheduled for Monday, 17 January was cancelled due to the blizzard affecting the Maritime region. The agenda items were a review of the contracts undertaken by the ACZISC Secretariat and membership in the

ACZISC Association. However, he has had the opportunity to discuss these issues with the Advisory Committee members individually. A meeting will be held at a later date.

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

- National Defence: Cdr Josh Barber has replaced Cdr Paul Earnshaw as Commanding Officer of Trinity's Joint Ocean Surveillance and Information Centre (JOSIC). Cdr Barber joins LCdr Bob Thwaites and Carol Lee Giffin in representing National Defence on the ACZISC.
- Government of New Brunswick: Russell Henry, Department of Agriculture, Fisheries and Aquaculture, joins Marianne Janowicz in representing the Government of New Brunswick on the ACZISC.

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

ACZISC BUDGET, FINANCIAL REPORT AND FUNDING: The ACZISC 2004-2005 budget to 31 December was distributed and reviewed (copy attached). Mike reported on the funding:

Federal Funding:

- In November 2004, the federal ACZISC members finalized a three-year Letter of Agreement (LOA) for ACZISC funding for the period 2004-05 to 2006-07. The LOA is currently being circulated sequentially to each of the eight departments for signature. Because of the slowness of this process, the ACZISC Secretariat has invoiced the individual departments directly. At present, two of the eight federal departments represented on the ACZISC have either not paid in full or not paid.

Provincial Funding:

- From 1992 to 2002, most of the provincial contributions to the ACZISC on behalf of NB, NS and PEI were made quarterly based on a per capita formula via the Council of Maritime Premiers (now Council of Atlantic Premiers – CAP). Following a review of the CMP programs, provincial funding became the responsibility of the beneficiary provincial departments. CAP volunteered to act as the 'banker' to facilitate payment.
- To initiate this 'devolution' process, the provincial members advised that meetings be held in each Province with senior government personnel in relevant departments to brief them on the benefits of ACZISC activities and to request funding support for the ACZISC.
- Meetings were held in St. John's (29 June), Charlottetown (27 July), Fredericton (15 Sept) and Halifax (1 Nov) to seek funding support for the ACZISC. NL and NS agreed to fund the ACZISC. Re NB, a letter was sent recently to Diane Kent-Gillis, ADM, Sciences and Planning, Department of Environment and Local Government re the outcome of the meeting of the ACZISC Secretariat with the Marine Planning Group on 15 September. The Secretariat has been communicating further with the PEI provincial government via Leo Walsh, DM Inter-Governmental Affairs; the process on the Island has been slowed due to the recent re-assignment of senior government personnel.

Contracts:

- National Secretariat of the Ocean Management Research Network (OMRN): \$15K has been paid by the OMRN National Secretariat, based at Saint Mary's University - \$10K for staff support this fiscal year and \$5K retroactively for organizing the workshops at last year's OMRN National Conference (November 2003 in Ottawa). Travel expenses have also been covered, including participation in the Ocean Innovation Conference (October 2004 in Victoria, BC) on behalf of the OMRN and the ACZISC.
- Capacity Study of the Earth and Environment Sector in Atlantic Canada: \$13.2 K of \$14K has been paid for participation by the Secretariat with Aerde Environmental Research (Dirk Werle) in the Canadian Space Agency (CSA) study. The balance will be paid following the submission and acceptance of the final report.
- GeoConnections Metadata Contract: \$1.5K to complete the GeoConnections metadata contract (total of \$15K). The balance will be paid following the submission and acceptance of the final report.
- 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

submitted to ACOA by the Secretariat in collaboration with Canmac Economics Ltd for the study was successful. The ACZISC portion of the \$80K contract is \$20.4K.

The objectives of these studies are outlined in the Workplan on pages 8-9.

Other:

- A submission to the Gulf of Maine Council on the Marine Environment Action Plan Grants Program for the Coastal Update e-newsletter would bring in US \$10K if successful. A decision is expected at the end of January.

Discussion:

Ken Dominie commented that NL funding for the ACZISC was currently split between three departments: Environment and Conservation; Fisheries and Aquaculture; and Natural Resources. This responsibility may be taken over by one department to reduce administration time/cost.

Justin Huston: A three-year agreement has been negotiated amongst several NS departments for ACZISC funding. This effort was led by Rosalind Penfound, DM of Agriculture and Fisheries.

Russ Henry: The NB and NS members of the Ocean Task Group of the Canadian Council of Fisheries and Aquaculture Ministers (CCFAM) are promoting the ACZISC as a great example of effective 'communications'.

Mike Butler: The late payment of dues is 'killing' the ACZISC, *i.e.* the Secretariat does not always have the cash flow required to pay salaries and other expenses.

Brent Rowley, Chair of the ACZISC Association Board of Directors, added urgency and weight to Mike Butler's comment. He stated that the Board of Directors of the Association, the fiscal agent for the ACZISC, was very concerned with the financial situation. He urged members to follow up on this year's commitments ASAP. He also stressed the importance of meeting next fiscal year's commitments early.

Carol Ann Rose: Individual dues should be paid in one payment at the beginning of each fiscal year.

Ed Light: An advance notice of invoice could be sent by 1 March each year to initiate the process. In addition members wishing to pay next fiscal year's dues early should contact the Secretariat.

Mike Butler also reported:

- Peverill & Associates has been hired for \$200 to set up an accounting system based on the Simply Accounting software.
- A draft budget for fiscal year 2005-2006 will be prepared and circulated to ACZISC members and the ACZISC Association Board of Directors for comment.

ACTION 44.08: When applicable, members to pay outstanding dues for 2004-2005 ASAP

ACTION 44.09: Members wanting to receive an invoice for their 2005-2006 dues prior to March 31 to notify the Secretariat by 28 Feb 2005.

ACTION 44.10: Secretariat to distribute to ACZISC members an advance notice of invoice for the 2005-2006 dues in the form of a 'reminder' by 1 Mar 2005

ACTION 44.11: Members to review the ACZISC Association budget/financial statement 2004-2005 and provide comments to the Secretariat

ACTION 44.12: Secretariat to prepare a draft 2005-2006 ACZISC Association budget by 28 Feb 2005 and circulate it to ACZISC members and the ACZISC Association Board of Directors for comment.

ACZISC WORKPLAN: The 2004-2005 ACZISC Workplan was distributed. Members reviewed and discussed the status of activities and deliverables. Mike noted that a draft 2005-2006 Workplan would be prepared and circulated to members for comment.

ACTION 44.13: Secretariat to prepare a draft 2005-2006 ACZISC Workplan and circulate it to ACZISC members for comment.

Mike Butler suggested that members email the Secretariat with suggestions for presentations at upcoming ACZISC Meetings. A list of previous presentations is included with the Workplan.

ACTION 44.14: Members to email the Secretariat with suggested presentation topics / presenters for upcoming ACZISC meetings

Geoff Lewis enquired if presentations at ACZISC meetings were posted on the ACZISC website. He added that several IC personnel had downloaded "Keeping the Garden Green and the Water Pristine (Sustainable Resource Policy for PEI)", a PPT presentation by Dr. Katherine Clough, Director, Strategic Planning and Measurement, PEI Dept of Agriculture, Fisheries, Aquaculture and Forestry. Claudette LeBlanc responded that the presentations are made available at <http://www.dal.ca/aczisc/docs#ACZISC> if provided by the presenter.

Ken Dominie requested additional details re the objectives of the contracts undertaken by the ACZISC Secretariat. Mike Butler stated that the contracts are undertaken, usually in collaboration with the private sector, to supplement membership dues. A prerequisite is that the contract deliverables are relevant to the mandate of the ACZISC. He noted that contracts take time away from ACZISC operations and administration and must be kept to a minimum.

- Staff Support for the National Secretariat of the Ocean Management Research Network (OMRN): Mike serves as Associate Director of the OMRN National Secretariat, based at Saint Mary's University. The OMRN is interdisciplinary, with an initial focus on social science. Its aim is to link all those across Canada with an interest in research relating to the management of ocean uses. It holds an annual conference in Ottawa.
- Capacity Study of the Earth and Environment Sector in Atlantic Canada: The objectives of the E&E study were: to characterize the current economic environment and the drivers of industrial development in the Atlantic Provinces; to outline the composition and significance of the E&E sector; and to identify barriers, enablers and opportunities for developing and promoting sustainable space-related industrial development in the area of E&E in Atlantic Canada. The study concentrated on the difficulty of small to medium-size companies to compete with the large companies.

Don Hogan added that an unwritten rule required that the CSA spend 10% of its project funds per year in the region, *i.e.* \$30 million. It has been spending ~3.2%. Geoff Lewis commented that the ACZISC was instrumental in arranging a meeting for the CSA with local stakeholders in Halifax in July 2003. At this meeting, it became clear that there is a disconnect between the CSA and scientists in the region.

- GeoConnections Metadata Contract: The objective of this project was to 'migrate' the metadata in the Atlantic Coastal Database Directory (ACDD) to the Atlantic Coastal Information Portal (ACIP), the sub-portal of the GeoConnections Discovery Portal (GDP).
- Study on the Economic Impact of the Ocean Technology Industry in Atlantic Canada and Potential Public Sector Demand for Ocean Technologies in Canada: The purpose of the Study is to estimate the value of the ocean technology sector to the economy of Atlantic Canada, and to assess the potential public sector demand for ocean technologies produced in Atlantic Canada. The Study will be an important part of the oceans strategy being developed by ACOA, within the context of the Oceans Action Plan, and specifically the 4th Pillar involving Ocean Technology.

ACZISC ASSOCIATION: Mike Butler reported the following:

- The ACZISC Association was registered under the NS Societies Act in November 2003.
- The Directors of the ACZISC Association are: Norval Collins, Brad Fay, Randy Gillespie, Brent Rowley (chair of the Board) and Lois Whitehead (Vice-chair). For legal reasons, government personnel are not eligible to serve as Directors.
- The application for charitable status is complete, other than identifying how much time and money are expended raising funds. This will be addressed by Jennifer Barr, the ACZISC Finance Officer, and Mike in the near future.
- The 3rd Board of Directors meeting was held on Friday, 17 December at the ACZISC Secretariat. A 4th meeting will be held in April to review the 2005-2006 draft budget and other issues.
- The 1st AGM of the ACZISC Association was held from 1715 to 1815 hrs yesterday (19 January 2005) at the Cambridge Military Library in Halifax.

Mike reviewed a schematic outlining the relationship between the ACZISC Committee, the ACZISC Advisory Committee, the ACZISC Association and the Secretariat. He suggested that all ACZISC members should become members of the Association because the Association is responsible for the fiscal management of the ACZISC budget.

ACTION 44.15: Secretariat to organize the 4th meeting of the ACZISC Association Board of Directors.

7. PRESENTATION: TECHNOLOGY IN THE MARINE ENVIRONMENT

LCdr Bob Thwaites introduced Dr. Ross Graham, Director General, Defence Research and Development Canada (DRDC) Atlantic. Dr. Graham briefed participants on the Research Centre, provided examples of R&D projects, and reviewed the Maritime Security program, including Public Security, Multisensor Integration in a Common Operating Environment (MUSIC), and Force Protection.

- DRDC Atlantic is one of six research centres operated by Defence R&D Canada, an Agency of the Department of National Defence. It was formerly known as Defence Research Establishment Atlantic (DREA). DRDC has a staff of ~ 1450; DRDC Atlantic has a staff of ~ 230, of which 90 are scientists.
- The mandate of DRDC Atlantic is to conduct research and development in support of operations, acquisition, maintenance, and requirements planning by Canada's Navy and Air Force.
- The research areas are: Underwater Sensing and Countermeasures; Naval Platforms; Air Platforms; Signature Management; Emerging Materials; Modelling and Simulation; Maritime Information and Knowledge Management; and Shipboard Command and Control.
- Example projects include: Remote Minehunting System; Remote Minehunting System Technology Demonstrator (RMS TD) project; Rapidly Deployable Systems - prototype; and Virtual Ship: Modelling and Simulation Replenishment at Sea.
- DRDC Atlantic's main client is the Canadian Forces; in addition, it carries out work in its areas of expertise for other clients.

Dr. Graham concluded by stating that:

- DRDC Atlantic is well situated to support the Canadian Forces.
- Defence technology has a dual use – defence and security.
- A horizontal approach is needed for the Centre's R&D.
- International collaboration is important.
- DRDC's involvement with the public sector will increase.
- For further information, access the DRDC Atlantic website at <http://www.atlantic.drdc-rddc.gc.ca>.

Discussion:

Darren Hicks: What is the turn-around time required to analyse data from the stealth buoy?

Dr. Graham: This ranges between 1-2 minutes.

Justin Huston: Is the impact of activities by other sectors, e.g., dragging/fisheries, on the stealth buoys a problem? Dr. Graham: A number of small arrays are more survivable.

Gary Rockwell: Are there problems deploying and recovering buoys? Dr. Graham: The problems are being addressed.

Bob Taylor: Can HFSWR (High Frequency Surface Wave Radar) measure wave height and current close to shore? Dr. Graham: The HFSWR is not effective close to shore but the Codar HF radar system is.

Bob Taylor: Will observation systems be put in place in the Arctic? Dr. Graham: Interest is again increasing re the Arctic. DRDC would like to test systems in the Arctic.

Geoff Lewis: What is the main obstacle to commercialization? Dr. Graham: DRDC develops prototypes in support of client needs. It has a good record of technology transfer to the private sector. However, to facilitate selling internationally, it is advantageous to have sold the item in Canada first.

Geoff Lewis: The stealth buoy could be appropriate for aquaculture applications. Dr. Graham: Intellectual property issues are a factor. Licences must be negotiated to facilitate exploitation and commercialization.

Gary Rockwell: What is the status of the Dorado (an enlarged version of the Dolphin semi-submersible unmanned vehicle)? Dr. Graham: National Defence intends to acquire a number of the vehicles and is looking into ways to do this. Canada is considering marketing the vehicle with France.

Kim Tofin: Is DND integrating private sector data into its systems? Dr. Graham: METOC (Meteorology and Oceanography Centre) is a good example of this type of collaboration.

Bob Thwaites: The Centre's data sources include INAV from the CCG, other federal departments, the provinces, the private sector, Provincial Airlines (via DFO), the web, etc.

Don Hogan: Eighteen federal departments are working on the OAP. Is DND involved?

Dr. Graham: DND is engaged in the process and has membership on the four Working Groups. A lot of work has been done by the Maritime Security Working Group (MSWG), some of which is slightly overlapping.

Don Hogan: A lot of data is available for Maritime Security, but not a lot of information.

Dr. Graham: Advances are needed in automated tools to allow operators to derive information from data. The development of operator aids is underway.

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

FISHERIES AND OCEANS CANADA: Gary Rockwell, Canadian Hydrographic Service - Atlantic, reported the following:

- CHS has announced that it is terminating its distribution agreement with Nautical Data International (NDI) as of 4 February 2005. More information is available on the CHS website <http://www.charts.gc.ca>.
- CHS continues to be financially challenged and there is no relief on the horizon. This 'erosion' of resources has been going on for more than 20 years.
- CHS is pleased to announce that the Coast Guard is proceeding with repairs to the CCGS Matthew and the installation of a new multibeam transducer. It is expected that the ship will be out of dry dock by mid to late April.
- Survey plans for the 2005 season are being developed.
- Work on the UNCLOS program is moving forward. CHS and NRCAN are tasked with the collection of the data required to substantiate Canada's claim for extended jurisdiction on its continental margins. Article 76 of UNCLOS sets out a complex formula that requires knowledge of the bathymetry and geology of the area claimed. As a first step, a Request for Proposals (RFP) is being developed for the collection of multibeam bathymetry along the edge of the continental shelf off the East Coast of Canada. This data will help determine the

location of the 2500 metre contour and the foot of the slope as required by Article 76. Future seismic surveys will determine the makeup and thickness of the sediment layer. Sediment thickness is another of the determining factors under Article 76.

Carol Ann Rose, DFO Maritimes Region, reported the following:

- Oceans Action Plan: The OAP received a favourable response during a federal Cabinet meeting held the 2nd week of January. The Memorandum to Cabinet for the OAP was approved in principle three years ago; however, no funding was allocated. As a result, OAP initiatives have been funded on an ad hoc basis.
- Marine Protected Areas: MPAs are established under the Oceans Act to conserve and protect unique habitats, endangered or threatened marine species and their habitats, commercial and non-commercial fishery resources (including marine mammals) and their habitats, marine areas of high biodiversity or biological productivity, and any other marine resource or habitat requiring special protection. Canada currently has two designated MPAs: The Gully on the east coast and the Endeavour Hydrothermal Vents on the west coast. March 2005 is the target date to have the Musquash Estuary in southwest NB designated as an MPA. The consultation process has begun.
- Eastern Scotian Shelf Integrated Management Initiative: The 3rd (ESSIM) Forum is scheduled for 22-23 February 2005 at Mount Saint Vincent University in Halifax. The goal is to move forward in developing an integrated management plan. A draft consultative report will be available. For details on the Forum, access <http://www.mar.dfo-mpo.gc.ca/oceans/e/essim/essim-activities-e.html>
- Coral Conservation Plan for the Scotian Shelf: A draft Plan will be released at the ESSIM Forum for final comment. Efforts to date have been somewhat ad hoc. The Plan is intended to provide a more consistent and coordinated approach to coral conservation, based on clearly defined objectives. A Fact Sheet is available at <http://www.mar.dfo-mpo.gc.ca/oceans/e/essim/pdfs/coral-factsheet.pdf>.
- Habitat Management: The Government of Canada and the Government of NS have signed an MOU on Fish Habitat Management to increase federal-provincial cooperation in protecting and enhancing fish habitat in the Province. The MOU is accompanied by a Workplan. This is the 4th federal-provincial fish habitat management MOU; the others are the Canada-BC MOU signed in 2000, the Canada-PEI MOU signed in 2002, and the Canada-Manitoba MOU signed in 2003. For information, access <http://www.mar.dfo-mpo.gc.ca/communications/maritimes/news05e/NR-MAR-05-02E.html>.
- The Province of NS has announced a new habitat fund which will be created by the collection of an additional \$5 for every fishing licence sold (except for seniors) beginning in April 2005.
- A 5-point Environmental Process Modernization Plan (EPMP) has been launched within Oceans and Habitat Management. The Plan is aimed at service delivery and better effectiveness of fish habitat management consistent with principles of sustainable development and smart regulation. The five points are: Risk Management Framework (RMF); Streamlining the Referral Practices; New Approach to Environmental Assessments and Major Projects; Partnerships; and Predictability and Coherence.

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

- Marine Protected Areas: Two sites in NL have been slated for designation in 2005 – Eastport and Gilbert Bay. Final consultations are underway, which involve the Federal Government, Provincial Government, Fish, Food and Allied Workers (FFAW), Canadian Association of Petroleum Producers (CAPP), Aquaculture Association, Canada-Newfoundland Offshore Petroleum Board (CNOBP), etc. Local public information sessions are being held. Copies of the January 2005 issue of The Coastal Current were distributed.
- Placentia Bay: The interim local planning committee will be holding its 1st meeting in February. This has been preceded by extensive consultations. A study is being undertaken on the economic valuation of marine resources in Placentia Bay, in conjunction with the update of the federal/provincial study published in 2002.
- Gulf of St. Lawrence: A science peer review process was conducted in November 2004 to

review the methodology for identifying ecologically and biologically significant areas (EBSAS). A national science peer review process is underway this week (18-21 January) in Moncton to review Ecosystem Overview Reports (EORs) for the Gulf of St. Lawrence Integrated Management (GOSLIM) initiative and ESSIM. The EOR for GOSLIM will be the basis for consultations with other government departments, stakeholders, etc. The proceedings of these workshops (and the Canadian Marine Ecoregions Workshop held in March 2004) are or will be available on the Canadian Science Advisory Secretariat (CSAS) website at <http://www.dfo-mpo.gc.ca/CSAS/>.

- Data associated with the community-based Coastal Resource Inventory for NL is now available on the DFO GeoPortal website at <http://gp2.chs-shc.dfo-mpo.gc.ca> - go to 'View DFO Maps', 'Fisheries Management', and then to 'Nfld and Labr Traditional Knowledge'. A description of the CRI on the ACZISC website at <http://www.dal.ca/aczisc/czmproj> was recently updated. Refer to attachment for further details.
- Regional consultations have begun on the new Grand Banks Integrated Management initiative. A workshop is planned in early March. The Grand Banks/Placentia Bay is one of 5 Large Ocean Management Areas (LOMAs) identified under the Oceans Action Plan.

NATURAL RESOURCES CANADA: Bob Taylor, Geological Survey of Canada – Atlantic, reported the following:

Geological Survey of Canada - Atlantic:

- The Coastal Conference CCC2005/CCL2005 is planned for 6-9 November 2005 in Halifax. This is potentially the last conference convened under the auspices of the Canadian Coastal Science and Engineering Association after 25 years. For information, access <http://www.ccc2005-ccl2005.ca>.
- The impacts of the storm surge on December 27th in PEI and NB were assessed by Don Forbes and Gavin Manson in a recent trip.
- Surveys will continue for the NB Sea Level Rise project.
- The GSC Open File Report 4839, which includes an excellent aerial video, is now available; it describes the coastal geomorphology of les Iles-de-la-Madeleine.
- A team from GSC including John Shaw and Don Forbes have left for the Seychelles in the Indian Ocean; they are part of an international group investigating the physical impacts of the December 2004 tsunami on coastlines in Southeast Asia.
- The deadline for abstracts for the CoastGIS 2005 conference in Aberdeen has been extended to the end of January. CRC press has published a book entitled "GIS for Coastal Zone Management" which contains papers from CoastGIS 2001 held in Halifax. Proceedings from the 1995, 2001 and 2003 conferences are available on the CoastGIS website at http://www.coastgis.org/past_conferences.
- A new publication entitled "A Geospatial Framework for the Coastal Zone" from the US National Research Council presents the results of an independent assessment of natural coastal zone mapping and coastal activities and needs in the US. Larry Mayer, now at the University of New Hampshire and formerly with the University of New Brunswick, is a primary author. The publication can be purchased or read online at <http://www.nap.edu/books/0309091764/html/>.

C-CIARN Coastal Zone (for Kathryn Parlee):

- Two reports have recently been published: 1) "Identifying Vulnerability to Climate Change and Challenges of Adaptation for Canada's Coastal Communities", a summary of a special session at the OMRN 2004 Conference, Ottawa and 2) "Reducing the Vulnerability of Coastal Trails and Boardwalks to Storm Surge, Flooding, Erosion and Sea Ice", a summary of the Trails Workshop held in Halifax in 2005. The reports are available at http://c-ciarn.bio.ns.ca/reports_e.php.
- C-CIARN Coastal Zone was a sponsor of and participant in a Workshop held in Bouctouche, NB on 11-13 November: "Climate Change and Coastal Communities: Concerns and Challenges for today and beyond".
- C-CIARN has announced the national conference "Adapting to Climate Change in Canada 2005: Understanding Risks and Building Capacity" to be held in Montréal, QC on 4-7 May.

Prospective authors are invited to submit abstracts by Friday, 28 January. For information, access http://www.adaptation2005.ca/call_e.html.

- The Canadian Climate Impacts and Adaptation Program (CCIAP) has issued a Request for Letters of Interest to submit a Proposal for Research. Topics of research that may be addressed in response to this call include one or more of the following: Community case studies; Community planning tools and approaches; Economic impacts of different rates of climate change on infrastructure; Learning from past events; The roles of different levels of government in community adaptation; and Hazard mitigation policies and robustness to climate change. The submission deadlines are: Friday, 18 February 2005 for community case studies and Friday, 11 February 2005 for all other topics. For information, access http://adaptation.nrcan.gc.ca/proposal_e.asp.

ACTION 44.16: Participants to consider submitting Letters of Interest for research proposals related to 'communities' to the Climate Change Impacts and Adaptation Program (C-CIARN). 18 Feb 2005 is the deadline for Case studies and 11 Feb 2005 for all other research topics.

Dolores Durant, GeoConnections Secretariat, reported the following:

- Funding for the GeoConnections program will end on 31 March 2005. The Secretariat is awaiting the release of the federal budget in February for information on whether there will be funding for a follow-on program. A new program would look at users/decision-makers, content (data/information) and innovation (infrastructure/technology/tools/applications).
- NRCan continues to encourage the growth of the CGDI. A number of partnerships are ongoing in Atlantic Canada, including GeoNOVA, Newfoundland and Labrador Surveys and Mapping Division, New Brunswick Lung Association, and Atlas of the St. Lawrence.
- Version 4 of the GeoConnections Discovery Portal (GDP) will be released by 31 March 2005; it will include a redesign of the web pages (following user-centric design principles) that will result in easier discovery and access of data by users.
- The Atlas of Canada is celebrating its 100th anniversary during the 3rd week of June 2006. A large conference will be held in Ottawa to celebrate the event; it will include GeoTec as well as societies such as the Canadian Cartographic Association, Association of Canadian Map Libraries and Archives, International Cartographers Association, and the Canadian Institute of Geomatics. A proposal for a commemorative stamp has been made and special maps will be released. The Atlas has grown in its online presence as a geographic portal for the public; it had ~ 4.5 million visitors to its website last year.
- The 2005 Canadian Cartographic Association meeting will be held in St. John's in July.
- A new Atlas Framework layer at 1:1,000,000 is being developed and will be released as a web map/feature service. An agreement has been reached with the Province of NL to include their data. Anyone who has digital data that they would like included should contact Dolores. The layer will include digital delineations of coastal and undersea physical features. The coastal features are expected to be available by the fall of 2005.
- Production of the National Hydrology Network has started. Nova Scotia is currently involved; the other provinces are expected to participate soon.

ACTION 44.17: Participants wanting to provide data for the National Atlas Frameworks 1:1,000,000 dataset to email Dolores Durant (ddurant@nrcan.gc.ca).

APICS / MEMORIAL UNIVERSITY OF NEWFOUNDLAND: Grant Gardner reported the following:

- Memorial University is considering ways to improve information exchange.
- Bonne Bay Marine Station of Memorial University:
 - The Station, now in full operation, is funded in part by ACOA. It offers a full range of university courses in the spring and summer, and has an interpretation program for

tourists and students. It has a well-equipped lecture theatre, laboratory facilities, and a system delivering high quality seawater to its aquarium facility.

- The site is excellent for small meetings and courses, and can accommodate groups of 24 in shared accommodations. Other accommodations are available nearby.
- The primary research thrust of the Bonne Bay Marine Station is an underwater observatory comprised of a main instrument cluster plus subsidiary clusters, all on the bottom of the Bay at diver-serviceable depths. The observatory is now generating data from a partial set of instruments, and the focus is on expanding the core that is operational. Broadband access, scheduled to be in place this winter, will allow remote access to the observatory. The observatory is funded by the Canada Foundation for Innovation (CFI).
- Some of the data will be available real-time or near real-time to school groups.
- Copies of a brochure on the Station were distributed. More information is available at <http://www.bonnebay.mun.ca>.

Ken Dominie commented that the Bonne Bay Marine Station would be a good location for ACZISC Meeting #46 scheduled for 14-15 September 2005 in NL. He will discuss this with the other NL members and the Station personnel.

ACTION 44.18: ACZISC members from NL to discuss the hosting of ACZISC Meeting #46 (scheduled for 14-15 September 2005 in NL) and associated details and report at ACZISC Meeting #45 (18-19 May 2005 in Charlottetown).

APICS / NATIONAL RESEARCH COUNCIL: Neil Ross reported the following:

- The Atlantic Provinces Council on the Sciences (APICS) is a non-profit organization composed of scientists, universities and other institutions in Atlantic Canada. Its goal is to strengthen research and technology in the region by providing a link between scientists in the universities and the government, and by fostering communication and cooperation among science students. (Information on APICS is available at <http://www.apics.dal.ca/>.) Neil is the chair of the APICS Aquaculture Committee.

MSX (Multinucleated Sphere X) disease:

- MSX is a parasite of oysters that was first described in Delaware and Chesapeake Bays in the US in the mid 1950s where it caused massive mortalities. MSX was first diagnosed in Canada in the Bras d'Or Lakes in 2002 when the Shellfish Health Unit at the DFO Gulf Fisheries Centre in Moncton received 60 oysters from one oyster leaseholder in the Bras d'Or Lakes and found that up to 80% of the oysters tested positive for MSX. Since that time, MSX has had a significant economic impact on numerous leaseholders due to oyster mortality and restrictions on harvesting activities. In 2000, the oyster industry in the Bras d'Or Lakes had an estimated value of \$1.6 million dollars; two years after the MSX outbreak, the value of this industry fell to less than \$800,000. The potential of this parasite to spread to other sites in the Maritimes is unknown.
- A meeting was held at St. Francis Xavier University on 10 December to bring together researchers, First Nations and industry representatives, etc. to discuss the current problems with MSX and suggest strategies to address them. Key participants included scientists from the National Research Council's Institute for Marine Biosciences (Halifax) and the Institute for Information Technology - Wireless Systems (Sydney), Dalhousie University, DFO (Moncton and BIO), St. FX, UCCB, Atlantic Veterinary College/UPEI, Eskasoni Fish and Wildlife Commission, Unama'ki Institute for Natural Resources, Aquaculture Association of Nova Scotia, NS Department of Agriculture and Fisheries, and industry participants.
- It is hoped that ideas discussed at the meeting will constitute an integral part of the future strategies employed in dealing with MSX and lead to funding proposals to complement those for which applications have already been submitted.
- It is also hoped that a multi-disciplinary research effort including remote sensing, dive surveys, biological studies will be able to provide the industry and its regulators information

- for the continued management of the oyster population and the oyster aquaculture industry.
- For more information, contact Neil Ross - tel 902-426-8402 and email neil.ross@nrc-cnrc.gc.ca.

MARIN / DALHOUSIE UNIVERSITY: David Wootton reported on the Maritime Activity and Risk Investigation Network (MARIN):

- The MARIN Research Group, headed by Dr. Ronald Pelot, is based in Dalhousie University's Industrial Engineering Department. Collaborating researchers are located at the University of New Brunswick and the University of Victoria. Project partners and sponsors include the Canadian Coast Guard, GEOIDE (Geomatics for Informed Decisions National Centre of Excellence), the National SAR Secretariat, the Canadian Hydrographic Service and Environment Canada.
- The primary goal of MARIN is to minimize the likelihood of an incident occurring and to mitigate the negative impact on person, property and environment in the event of an incident. This is achieved through the application of MARIN's analysis and dissemination of information to its partners, allowing decision makers to more easily make informed decisions.
- Effective decision support is achieved by presenting pertinent data and information. Sometimes the information held within a dataset is not readily apparent until it is related to another dataset, aggregated, or statistically, spatially and temporally analyzed. Using a variety of presentation tools (such as thematic mapping) MARIN can present the composite dataset in a way that the information can be quickly extracted and understood. Furthermore, specific tools have been developed for traffic simulation, SAR response analyses, and location/allocation modelling.
- MARIN has a unique set of technical abilities, custom GIS tools tailored for the maritime environment and risk analysis, and cutting edge research.
- For further information, access <http://www.marin-research.ca> or email: marin@dal.ca.

DM SOLUTIONS GROUP: Kim Tofin reported the following:

- DM Solutions Group (DMSG) was founded six years ago on the vision of anyone with Internet access being able to produce and visualize maps on the web. DMSG is the developer and maintainer of an easy-to-use Open Source Web mapping toolkit. At the core of the technology is MapServer – originally developed by the University of Minnesota. DMSG now undertakes 80% of all new development, enhancements, and manages its release schedule. Other web-mapping tools in the suite are Chameleon and MapLab.
- DMSG designs and builds web-based community data infrastructure solutions that allow all stakeholders to share and leverage their diverse data assets. Through support of OGC (Open Geospatial Consortium) standards, data from many providers and in many formats is made available to all users in a seamless way – without the need for data conversion or data warehousing at one central location. DMSG provides OGC standards publishing software that allows data residing on local servers (anywhere in the world) to be published and accessible to a community's portal 'on demand'.
- The resulting data services can be easily integrated into online maps – queried, updated, and printed directly from the portal. Additionally, map output can be included in value-added web mapping applications hosted (with no additional software licensing requirements) on the stakeholders' servers. All the necessary technology and services are available from the centralized portal location. If required, access to proprietary data can be controlled securely through on-line authentication protocols.
- The DMSG business model is based on delivering solutions that are demand driven and focus on user-needs and requirements.
- Further information is available at <http://www.dmsolutions.ca>.

GOVERNMENT OF NOVA SCOTIA: Ed Light, Service Nova Scotia and Municipal Affairs, reported the following:

- The GeoNOVA Program within the Government of Nova Scotia is mandated to develop and manage partnerships with the geomatics community working within NS. Its primary goal is to

- make data accessible to the user community.
- GeoNOVA has secured memoranda of understanding and data access and or cooperative maintenance agreements with all 55 municipalities within the Province. As well, this year it has secured a Memorandum of Understanding - "Cooperation in the Development, Sharing and Distribution of Geographic Information" - with the Confederacy of Mainland Mi'kmaq of NS (representing 6 Mi'kmaq bands within the Province).
- SNSMR has a data partnership arrangement with the Inter-agency Committee on Geomatics (IACG). This partnership, led by Statistics Canada, allows for the provision of Nova Scotia's civic address data to all IACG members.
- Through the NS Department of Justice, SNSMR has further established an agreement for access to the provincial civic address file with the RCMP.
- SNSMR continues to work with the national GeoBase program. Because of this business partnership, NS has managed to make its 1:10,000 topographic data available free to the end users. At present NS continues to work with GeoBase in defining the national standard for the presentation/dissemination of the National Hydrology Network layer.
- Metadata continues to be a major focus for the NS geomatics coordination efforts. GeoNOVA is completing an 18-month metadata initiative. It will have reviewed and edited 400+ collection level records as well as added more than 4,000 product level metadata records. This is a direct result of a partnership between GeoNOVA and GeoConnections. GeoNOVA is now looking at metadata opportunities within the municipal units and the community groups.
- For the past 18 months the Province has been working on Phase One of the GeoNOVA Portal. In June 2004 the Portal was launched with the delivery of web mapping services for key geographic data holdings such as the NS 1:10,000 scale topographic database. Since the launch GeoNOVA continues to build components of the Portal including: web mapping and feature services for the topographic database (all scales); the Property records database; civic address database and the provincial geographic names database, as well as selected thematic databases from the departments of Environment and Education and the Elections Office. Portal efforts have also developed a web-based coordinate transformation service that is seen as a critical first step in supporting a long awaited Coordinate Reference Policy. In addition to developing services for the Portal, sustainability of the system remains an important part of the effort and as such plans have been put into place, or are now being developed, in areas such as security and implementation of business and technical models (e.g., service level agreements, data custodian agreements, etc.).
- In the coming months the GeoNOVA Program will be hosting a one-day workshop on the issue of the relationship between access to geographic information and the Freedom of Information and Protection of Privacy Act (FOIPOP). Individuals wishing to learn more about this workshop are requested to email Ed Light at lighted@gov.ns.ca.

Justin Huston, Agriculture and Fisheries, reported the following:

- The Minas Basin Working Group of the Bay of Fundy Ecosystem Partnership (BoFEP) plans to hold a meeting with municipal planners in February/March to help gain insight on the role municipal planning can play in integrated watershed and coastal planning in NS. The focus of the meeting will be to identify specific challenges and opportunities that municipal planners have in reducing land-based impacts on the marine environment in the Minas Basin watershed.
- In early spring a report will be released estimating the economic value of Nova Scotia's ocean sector over the years 1995-2002. This is an update to the 1998 report that was based on 1994 data. The report will provide a detailed summary of the various ocean/coastal industries as well as their direct and indirect impacts to the overall economy of the Province. Once released, the report will be posted on the ACZISC website.
- This spring students of the Marine Affairs Program (<http://www.dal.ca/map>) at Dalhousie University will be seeking sponsors for 4-6 week internships related to their academic and professional interests. This is an excellent opportunity for organizations looking for skilled and experienced individuals for a short-term project or to assist in day-to-day operations. For further detail, contact Becky Field, MAP Administrator.

ACTION 44.19: Participants wanting further details on the MAP student internship program to contact Becky Field, MAP Administrator – tel 902- 494-3555 – email marine.affairs@dal.ca.

HYPERSPECTRAL DATA INTERNATIONAL INC: Patrick Gagnon reported the following:

- Hyperspectral Data International is an Atlantic Canadian-based information technologies company that specializes in the collection, processing, and analysis of remotely sensed data for earth resource, and environmental applications. As part of the ADI Group, an international, multidisciplinary engineering firm, HDI has completed projects both nationally and internationally. HDI comprises two integrated divisions: Data Acquisition, and Applications Development.
- The Data Acquisition Division focuses on the collection and preliminary processing of airborne hyperspectral, multispectral, and digital aerial photography for both terrestrial and aquatic applications. HDI owns and operates two airborne remote sensing systems: (1) a high resolution digital camera system capable of acquiring both true colour and colour infrared aerial photography at resolutions as low as 0.15 metre and (2) a hyperspectral imaging sensor (compact airborne spectrographic imager) capable of acquiring up to 96 wavelength bands (visible - near infrared) at resolutions down to 0.5 metre. HDI also specializes in the acquisition and processing of satellite based optical and SAR image data.
- The Applications Development Division provides a variety of analytical and mapping products and services for both the terrestrial and aquatic sectors. HDI is experienced in the development of multidisciplinary geoscience databases through the integration of individual data layers, a fundamental precursor to analysis and mapping applications.
- HDI's project experience in terrestrial applications includes: land use/land cover mapping, forest inventory mapping, agricultural productivity mapping, environmental monitoring and assessment, and geological mapping/mineral exploration.
- Experience related to aquatic applications include: coral reef mapping and habitat assessment, water quality assessment, mapping and monitoring of submerged invasive flora, nearshore coastal change detection and mapping, and most recently, the generation of digital bathymetric models from airborne hyperspectral survey data.
- HDI has engaged in R&D with the addition of in-house expertise in the field of marine sciences. HDI has recently been selected by the Canadian Space Agency (CSA) to map shallow marine coastal habitats in tropical and temperate environments using CSA's developing spaceborne hyperspectral sensor (HERO). This multidisciplinary research will combine the use of CASI and hyperspectral remotely-sensed satellite data from existing sources, and largely rely on the application of an existing approach at HDI to map and monitor shallow coastal habitats. The initial phase of the project is scheduled to begin within the first months of 2005 and will involve a number of key international researchers and specialists in the field of remote sensing, marine ecology, statistics, and management.
- For further information, access the HDI website at <http://www.hdi.ns.ca>.

GOVERNMENT OF NEW BRUNSWICK: Russ Henry, Agriculture, Fisheries and Aquaculture, reported the following:

- The NB Department of Agriculture, Fisheries and Aquaculture, in collaboration with DFO, has initiated a two-phased Marine Resources Planning Initiative: Phase one - design the process, and Phase two - develop the plan. The Initiative is being designed by, and for, stakeholders. Currently stakeholders include the aquaculture industry, the fishing and processing industry, the NGO community, the ecotourism industry and the regional economic development commission.
- A shellfish planning project is underway by the Department in collaboration with DFO. The objective is to develop a proactive plan that identifies acceptable areas and methods for commercial production of shellfish on the east coast of NB. Two key areas have been selected: Richibucto and Tabusintac. Maps have been developed and the public consultation process is underway.

- Official discussions are ongoing with the Province in an effort to finally establish the proposed Musquash Estuary Marine Protected Area, by regulation under the Oceans Act.
- The provincial Departments of Agriculture, Fisheries and Aquaculture (DAFA), Environment and Local Government, and Natural Resources have been collaborating on marine planning issues within the Province. A workplan has been prepared and approved by senior management. The focus of the work is to review, streamline and coordinate the membership on marine committees, and coordinate GIS information among Departments.
- The provincial working group has also been collaborating with federal personnel on a federal / provincial ICZM working group. The group has prepared a draft workplan and is awaiting approval of senior management to proceed.
- James Byron, the DAFA Deputy Minister, facilitated an Oceans Governance workshop in Portsmouth, New Hampshire during the December meeting of the Gulf of Maine Council on the Marine Environment. A key recommendation from the forum was the development of a large US-Canada project on Ocean Governance to include the east and west coasts of Canada and the US, including the Great Lakes. An ad hoc committee will review ideas and make recommendations on how to move forward on such a project.

Mike Butler reported that the Ocean Management Research Network (OMRN) had an Ocean Governance Working Group that is chaired by David VanderZwaag, Canada Research Chair in Ocean Law and Governance, Dalhousie University - david.vanderzwaag@dal.ca.

CEF CONSULTANTS: Norval Collins, President, reported the following:

- The Champlain Institute has been dissolved and the charter has been surrendered. The mandate of the Institute was to develop and promote private sector geomatic export.
- A proposal submitted to ACOA by the Information Technology Alliance of Nova Scotia (ITANS) to establish a geomatics export corporation was not successful. The corporation was intended to be the NS counterpart to NATI (Newfoundland and Labrador Alliance of Technology Industries) and Terradigm in NB.
- The Gulf of Maine Mapping Initiative (GOMMI) is a Canada/US partnership of government and NGOs to conduct comprehensive seafloor imaging, mapping, and biological and geological surveys. CEF was employed to carry out a user-needs assessment for GOMMI; this was done with the aid of a web-based survey tool. The report is available on the GOMMI website at <http://gulfofmaine.org/gommi/>.
- CEF worked on the land use component of the Environmental Report on the Gulf of Maine and Bay of Fundy, prepared for the Gulf of Maine Summit held on 26-29 October 2004 in St. Andrews, NB. A key finding was the incredible role of population growth on the coastal environment. The other sections of the report focused on contaminants and pathogens, and fisheries and aquaculture. The report is available at <http://www.gulfofmainesummit.org/docs/Tides%20of%20Change%20Across%20the%20Gulf.pdf>.
- CBCL and CEF are working on a Strategic Environmental Assessment of North Rustico, PEI for the Parks Canada Agency and DFO. The study is focusing on longstanding issues related to water quality, climate change, etc.

PARKS CANADA AGENCY: Rob Thompson, Atlantic Service Centre, reported the following: Magdalen Islands - National Marine Conservation Area (NMCA) Feasibility Study:

- Parks Canada has a goal to establish five new NMCAs by 2008. Three have already been identified for study - two on the west coast, and one in Lake Superior.
- Parks Canada has initiated a feasibility study for a possible 4th marine conservation area around the Magdalen Islands in the Gulf of St. Lawrence. The project is being addressed by Parks Canada staff from Québec City and Gatineau, Québec.
- A project manager and a Steering Committee are in place. A local stakeholder consultative committee is currently being selected; members will be appointed by the Minister.
- The study boundary is the 50-metre depth contour around the Islands
- A number of specific assessment studies will be underway soon including a mineral and energy assessment with NRCan, and fisheries, fish habitat and seabird studies with DFO.

- Parks Canada is aware of the Southern Gulf initiative and its approach to integrative management; close contact will continue with DFO primarily in Québec, but also in Moncton, NB.

South Coast of Newfoundland - Local Interest in a Possible NMCA:

- The Burgeo Diversification Development Board has expressed interest on behalf of five local communities, fisher committees and stakeholders for a possible NMCA along the south coast of Newfoundland; this interest has developed over 2003 and 2004.
- A formal submission has been made to Parks Canada; the submission is now under consideration.
- The Newfoundland and Labrador Legacy Nature Trust is also supporting this submission.
- The Board is aware that this marine area could be the 5th and last area for a feasibility study by Parks Canada for a number of years.
- There are a number of other marine areas across Canada competing with this submission.
- A Ministerial decision is likely this spring.

Torngat Mountains National Park Reserve of Canada:

- On 22 January 2005, the Governments of Canada, and Newfoundland and Labrador, and the Labrador Inuit Association will gather in Nain, Labrador to sign three agreements that will lead to the establishment of the Torngat Mountains National Park Reserve.
- The three agreements are the Labrador Inuit Land Claims Agreement, the Park Impacts and Benefits Agreement, and the Land Transfer Agreement for a National Park Reserve in the Torngat Mountains.
- The Park Reserve will come into effect when the federal legislation to give effect to the Land Claims Agreement is enacted; this should occur later this year.
- The Park will be managed in the same cooperative spirit in which it was created. Under the Park Impacts and Benefits Agreement, a cooperative management board that includes representatives from the new Nunatsiavut Government and Parks Canada will be established to advise the Minister of the Environment on matters related to the management of the park.
- The National Park Reserve covers an area of about 9600 km² of the Northern Labrador Mountains Natural Region. The Park will protect a spectacular wilderness of mountains, scenic fjords, river valleys and rugged coastal areas; the area extends from Saglek Bay in the south to the northern tip of Labrador, and from the Québec/Newfoundland border to the Labrador Sea.
- This is Labrador's 1st national park and Canada's 42nd. The Park Reserve will become a National Park of Canada once a Park Impacts and Benefits Agreement and treaty are concluded with the Makivik Inuit regarding Nunavik Inuit rights in Labrador (overlapping land claim).

Ken Dominie stated that the NL Government had donated the 9600 km² to the Federal Government for the establishment of the National Park. Rights to the resources have also been surrendered. Rob added that the Federal Government recognized and appreciated the significance of the donation.

ENVIRONMENT CANADA: Réal Daigle, Meteorological Service of Canada, made a PPT presentation on the Study of the Impacts of Sea-Level Rise and Climate Change on the Coastal Zone of Southeastern NB:

- The 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.
- Sea level is expected to rise by ~ 70 cm over the next century: 50 cm caused by climate change and 20 cm due to land subsidence. The rise may not be constant over the period.
- Réal showed several Lidar 3-D digital maps of areas affected by the January 2000 storm surge in the region. The images will be posted in February on the Project website at

<http://atlantic-web1.ns.ec.gc.ca/slr/>.

- The digital elevation models (DEMs) can be used in computer simulations to visualize which areas would be flooded when sea-levels reach various heights. Wave action is not included in the simulations.
- A vertical accuracy of +/-10 cm has been achieved in the DEMs with the Lidar images.

Réal added that, as per an action item from the previous ACZISC meeting, he, Don Forbes, GSC Atlantic and Kathryn Parlee, C-CIARN Coastal Node, had organized a meeting with personnel of Public Works and Government Services Canada to discuss the impacts of sea-level rise on the Department's activities and programs. The meeting will take place on 22 February in Moncton. Personnel from DFO will also be invited. A larger meeting may be organized at a later date.

Bill Horne, Environmental Emergencies Section, reported the following:

- Spills: The Emergencies Section responded to three significant spills from the oil and gas sector near Sable Island and on the edge of the Scotian Shelf and offshore Newfoundland. The spills are being reviewed and investigated by EC's Office of Enforcement, the Canada-NS Offshore Petroleum and the Canada-Newfoundland Offshore Petroleum Board.
 - A 4,000 L spill of diesel due to a faulty cracked oil filter holder from the satellite gas production platform North Triumph of the Exxon Mobil's Sable Offshore Energy Project. No diesel reached Sable Island.
 - An accidental release of 354 m³ of synthetic based mud from a deepwater exploratory drilling rig while abandoning Marathon's Crimson lease.
 - A spill of 170,000 L of oil from the vessel FPSO Terra Nova due to equipment malfunction that allowed oil to flow for five hours at Petro-Canada's Terra Nova offshore project.
- Operation Clean Feather: Each year hundreds of thousands of seabirds die off Canada's Atlantic coast as a result of discharges of oily bilge waste from ships. This winter and spring an inspector will board vessels in the Maritimes to educate mariners. For a number of years, the Operation Clean Feather program in NL has worked to mitigate sea bird mortality by preventing discharges at the source. The goal of the program is to inform mariners of the impact oil can have on seabirds, and other marine plants and animals and to encourage them to employ responsible treatment and disposal practices. The program is undertaken by EC in partnership with Transport Canada, DFO, Port Corporations, shipping companies and ships' agents. Reference oil samples from the ships are also collected for research.
- Surveillance: Along with DFO and Transport Canada, EC is undertaking various programs to monitor marine pollution from shipping and offshore platforms, including deliberate discharges of bilge water containing water and spills. Monitoring using DFO's surveillance plane and Radarsat satellite imagery will continue to improve operational techniques. EC participated in the selection of next year's round of imagery and will receive 2 sets out of 75 for surveillance in Atlantic Canada.
- Environmental Damages Fund (EDF): Established in 1995, the EDF serves as a special holding or trust account to manage funds received as compensation for environmental damage. These funds may come in the form of court orders, awards, out-of-court settlements, voluntary payments and other awards provided by various international liability funds. Presently, over \$700 K have been awarded to fund projects in the Atlantic Region and over \$500 K have been allocated back to community groups for enhancement programs. This fund is administered by the Environmental Emergencies Section. Additional information is available from the EC website at <http://www.ec.gc.ca/ee-ue>.
- Mapping: EC's Headquarters is undertaking a new National Environmental Emergencies Mapping Program to replace the existing mapping program; the new program is expected to be unveiled this April.
- Canadian Environmental Protection Act (CEPA): New regulations (Part 8) under CEPA 1999 require that Environmental Emergencies Plans be developed and submitted to EC for 74 regulated substances that are stored (above certain quantities) by companies in Canada. Emergencies Section will administer these regulations. Additional information is available

from the EC website at <http://www.ec.gc.ca/ee-ue/>.

- CANUSLANT 2005: In June 2005, EC will participate in CANUSLANT 2005, an international oil spill exercise in Bar Harbour, Maine.

COMMUNITY ORGANIZATIONS / SOUTHEAST ENVIRONMENTAL ASSOCIATION: David Boyce, Executive Director, SEA, reported the following:

- SEA is renewing its strategic plan. Water quality/quantity, land stewardship, energy conservation, litter, and habitat/biodiversity have been identified as priority issues.
- The Cardigan Fish Hatchery was transferred from DFO to UPEI in 1997. UPEI is now selling the property. SEA and the Cardigan Communities Development Association have been working with researchers, the enhancement community and commercial aquaculture operators to establish a research and education centre in the facility.
- The Community Aquatic Monitoring Program (CAMP) was started by DFO for groups in the Gulf of St. Lawrence region. The intention is to gain baseline data about abundance and species diversity (including invasives) to determine if there are biological indicators in estuaries that can be used to indicate water quality issues.
- RésEau is a Government On-Line demonstration initiative that focuses on water information. It establishes partnerships and projects to demonstrate the sharing, discovery, access to, and use of water information over the Internet. The project is led by EC in partnership with NRCan and Health Canada. SEA is the lead for a proposal submitted to RésEau by the ACAP groups. The objective is to make the group's collective data on water quality and water quantity OGC compliant. The data will be registered with the CGDI and made available online through a WMS/WFS.
- PEI has experienced several storm surge events over the past four years. SEA is working with several partners to deliver a dune restoration project in areas where coastal infrastructure is at risk.
- SEA is undertaking a water-use reduction project in the Town of Montague where 50 homes will be metered for consumption. They will be divided into three groups and each group will be given a different selection of products and information related to water consumption. Once the project is complete all 50 homes will receive the full package. The goal is to 'prove' that these products work well in promoting water conservation. Results will be transferred to other municipalities. Charlottetown draws its water from the Winter River watershed, which appears to be facing a reduction of water flow.
- SEA will be carrying out a study in the Montague watershed of nutrient contributions from various sources to better understand the magnitude and the extent of the issue. Actions can then be taken to alleviate the problem. Funding the project to adequate levels and interpreting the data will be challenges to overcome.
- On April 22-23, there will be an onsite sewage workshop and tradeshow in Montague, in conjunction with the AGM of Southern Gulf of St. Lawrence Coalition on Sustainability. The issues to be covered include technology, management and awareness. The agenda will be available soon.

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA: Michel Goguen reported the following:

- PWGSC is the Government of Canada's common service provider in the fields of real property management, purchasing, banking and accounting, and the provider of Government On-Line, information technology, translation, audit and consulting services.
- The Government of Canada's 'Citizens Dividend' initiative will result in \$12 billion savings over 5 years through improving the efficiency of operations, exploiting opportunities for economies of scale and leveraging investment in alternative forms of delivery:
 - \$6B savings will be achieved through Real Property Renewal, purchasing by Services Canada and PWGSC bulk acquisitions. Buildings and other assets may be sold.
 - \$6B will be achieved through a 5% budget cut from all Departments.
- Discussions are ongoing re the possibility of dividing the Department into two: a strategic component and an operational component. Business is as usual for now although new initiatives are explored weekly.

- Michel participated in a Marine Advisory Committee meeting held in conjunction with the Oceans Innovation Conference last October in Victoria, BC.
- PWGSC is managing the federal portion of the ten-year project to cleanup the Sydney Tar Ponds and Coke Ovens. The cleanup will use proven technologies to treat and destroy the worst contaminants. The remaining material will be treated before both sites are encapsulated with an engineered containment system and landscaped. Once the cleanup is completed, the Province of NS will assume ownership of the properties.

INDUSTRY CANADA: Geoff Lewis, Energy and Marine Branch, reported the following:

- The announcement in the October issue of the ACZISC Coastal Update re the availability of the report entitled "Energy from Waves and Tidal Currents: Towards 20yy ?" led to many requests for the report, *i.e.* an ACZISC Outcome.
- The Canadian Initiatives at Oceans-Techno Oceans 2004 in Japan last fall was very successful. A standing-room-only crowd participated in the Workshop on Canadian Ocean Technologies (which included presentations by several companies of interest to ACZISC, *e.g.*, CARIS, Optech, etc.). The Consul General's reception included Canadian Scientists and their Japanese counterparts as well as the exporting firms and their customers.
- Planning for the February Mission to the US Naval Research Labs and NOAA Data Buoy Centre at Stennis Space Centre in Mississippi is going very well with 51 people from 27 companies confirmed as participating.
- The Energy and Marine Branch (EMB) will assign priority to the implementation of Phase One of Canada's Oceans Action Plan (OAP), assuming it gets funding approval. Don Hogan of ACOA will discuss the status of the Science and Technology Commercialization Pillar of the OAP.
- The EMB's other priorities in planning for this year include the Arctic, International Business Development, and Technology Diffusion. The EMB goal is for its initiatives to be "Perceived by participants as helping them to more effectively achieve their business objectives". With that in mind, the EMB would like to know who may be considering participating in the following events, and how to work together on them. The events include the following:
 - Ocean Industry Cluster Development
 - Virtual Technology Road Map for Marine and Oceans
 - IEEE Oceans Europe (Brest, France)
 - MTS IEEE Oceans 2005 (Washington, DC)
 - Oceanology International 2006 (London, England)
 - Coastal Zone 05 (New Orleans, Louisiana)
 - International Hydrographic and Oceanographic Conference and Exhibition (Kuala Lumpur, Malaysia)
 - AMRS International Conference on Remote Sensing for Marine and Coastal Environments (Halifax, NS)
 - Oceans Innovation 2005 (Rimouski, QC)
 - WATTS-2005 (Wave and Tidal Technology Symposium) (Aberdeen, Scotland)
 - Maritime Security (*e.g.*, Maritime Security Expo 2005, New York)
 - Ocean Exploration Initiative (with USA)
 - Ocean Observatories (with Ireland)

Note: the number of initiatives undertaken by IC in FY 2005/06 will depend on its budget.

ATLANTIC CANADA OPPORTUNITIES AGENCY: Don Hogan, ACOA NL, reported the following:

- Ocean Technology Solutions Initiative (OTSI): As explained during the last ACZISC meeting on 16 September in Fredericton, three regional agencies (ACOA, WD, and CED-Q) are considering undertaking 3-4 consortia building initiatives to address technology challenges associated with the implementation of the Federal Government's Oceans Action Plan. While discussions are ongoing, the Technology Commercialization Working Group (WG-4 under the Oceans Action Plan) has proposed a somewhat similar initiative, the Ocean Technology Solutions Fund (OTSF). One suggestion from Industry Canada is that the regional agencies initiate business/government/research community collaboration to identify early measures

for funding under the OTSF. Funding for such a program is subject to budgetary approval, expected in late February. It is possible that the earlier proposed OTSI concept will be merged with the OTSF under the OAP.

- Oceans Action Plan: On December 8th, responsible Federal Ministers approved in principle the proposed Oceans Action Plan (Phase 1). It remains to be seen whether the federal Department of Finance includes the request for funds in the 2005/06 Budget. Three initiatives under the Ocean Technology Commercialization pillar are proposed: A Network of Networks program, the Ocean Technology Solutions Fund, and the Placentia Bay Technology Demonstration Project.
- Placentia Bay Technology Demonstration Project: The Canadian Centre for Marine Communications (CCMC) has been championing this initiative under a number of names for several years, *i.e.* the Marine Electronic Highway, Information Seaway, SmartBay initiative. Under contract with IC, ACOA, NRC and the Government of NL, CCMC has completed workshops with Placentia Bay stakeholders to determine information needs, data availability, etc. ACOA has funded a benefits study (Canning and Pitt, 2004), with a view towards determining the business case for the Placentia Bay Technology Demonstration project. As noted above, funding of the Placentia Bay project is being requested under the Oceans Action Plan.

Mike Butler added that both the ACZISC and the OMRN had been asked to provide support in principle for the Network of Networks.

GOVERNMENT OF NEWFOUNDLAND AND LABRADOR: Ken Dominie, Environment and Conservation, reported the following:

- The creation of a NL Oceans Network is being promoted by Mike Warren, NL Department of Fisheries and Aquaculture, and Ken. The NL Ocean Network would be responsible for managing ocean-related issues internally in the Province and for interacting with the Federal Government. A proposal has been submitted to the DMs.
- The Province is in the very early stages of discussing an MOU with the Federal Government. The Department of Inter-Governmental Affairs has been engaged in the discussions.
- Oil spill response is a major issue in the Province. A meeting was held recently with Transport Canada, the CCG and EC to discuss response from both a technical and administrative perspective.
- The Province is working on waste management issues in relation to large oil spills. A study has been sponsored by EC. A lot of lessons have been learned from the Prestige incident and oil spill in November 2002 off the coast of Spain.
- NEIA (Newfoundland and Labrador Environmental Industry Association) has been asked to sponsor a workshop on managing waste from oil spills on 17 March in St. John's. Other provinces have expressed interest in participating. Participation will be by invitation only.
- The Province has implemented a policy which requires that a Strategic Environmental Assessment be done for all new policies and projects. A documented development process is available to assist other departments.

Darren Hicks, Natural Resources, reported the following:

- The Department's involvement in the Eastern Scotian Shelf Integrated Management (ESSIM) initiative is ongoing. Darren has participated in working group conference calls and will be attending the 3rd ESSIM Forum scheduled for 22-23 February in Halifax.
- DNR is involved in the new initiative "Grand Banks Large Ocean Management Area" (GB LOMA, or GBIM - Grand Banks Integrated Management). The area is approximately 400,000 sq. km. and is subject to significant ocean traffic and oil and gas activities. Meetings of both federal and provincial representatives have been held.
- In December, Darren participated in a meeting organized by DFO to provide an update on the Grand Banks. DFO is reviewing seismic regulations.
- The Province is 'looking into' updating the economic study entitled "Estimating the Value of the Marine, Coastal and Oceans Resources of Newfoundland and Labrador", published in

March 2002. Ken Hicks, Economics and Statistics Branch, NL Department of Finance, is the contact person - khicks@gov.nl.ca.

- The NL Government is introducing a Sustainable Development Act to serve as the legislative framework for a Strategic Environmental Management Plan. The Act will provide for the establishment of a NL Round Table for Sustainable Development. Efforts will be made to engage all sectors: energy, oil and gas, mining, fisheries, agriculture and agrifoods, forests and wildlife, and water planning and management.

NATIONAL DEFENCE: LCdr Bob Thwaites, DRDC, reported the following:

- DRDC Atlantic's specialized facilities include:
 - the 2200 ton CFAV Quest, a research ship specially designed for open ocean acoustic research.
 - an underwater acoustic calibration facility on a research barge moored in Bedford Basin. The barge is used ~ 180-200 days per year.
 - an acoustic tank facility
 - a pressure vessel which can be used to simulate ocean depths of up to 5975 metres of water, a pressure of 58,600 kPa.
- DRDC's facilities support the agency's research and can be leased for specification, design and testing. They are used by both civilian and defence organizations. Space/capacity is at times available on the Quest and the research barge. Participants wanting to discuss booking space should contact LCdr Thwaites.
- DRDC is doing some marine mammal research related to risk mitigation. The focus is on the detection and localization of marine mammals using passive acoustics.
- Bob requested help in identifying two high-level speakers to present on the OAP. Members suggested Dr. Peter Harrison, NRC in Ottawa and Dr. Mary Williams, NRC Institute for Ocean Technology in St. John's. The Secretariat will send their contact information to Bob.

ACTION 44.20: Participants wanting to discuss booking space on either DRDC's Quest or the research barge to email LCdr Bob Thwaites at bob.thwaites@drdc-rddc.gc.ca.

UPDATES ON ACZISC RELATED PROGRAMS

COASTAL ZONE CANADA 2004: Grant Gardner, chair of the CZC 2004 Organizing Committee, reported on the Conference, held on 27-30 June 2004 in St. John's:

- The final report to participants is being assembled and will be distributed within the next few months. The Conference outputs will be distributed on CD and will include the abstracts, reports and summaries of all sessions and the Conference Resolution.
- An ad hoc committee has completed the Conference Statement. Peter Ricketts, President of the CZC Association, is currently circulating the Statement to several senior officials.
- The Conference accounts will not be closed for some time. However, it is expected that CZC 2004 will have a small surplus remaining after all of its expenses are paid. The surplus will be used to support CZM activities in NL.

EASTERN SCOTIAN SHELF INTEGRATED MANAGEMENT: Carol Ann Rose reported that the 3rd (ESSIM) Forum was scheduled for 22-23 February 2005 at Mount Saint Vincent University in Halifax. The goal is to move forward in developing an integrated management plan. A draft consultative report will be available. For details on the Forum, access <http://www.mar.dfo-mpo.gc.ca/oceans/e/essim/essim-activities-e.html>

GULF OF MAINE COUNCIL ON THE ENVIRONMENT / GLOBAL PROGRAMME OF ACTION COALITION FOR THE GULF OF MAINE: Norval Collins reported that the Gulf of Maine Summit was held on 26-29 October 2004 in St. Andrews, NB. A State of the Gulf Report was produced that documents environmental, economic, and social trends and conditions for three

primary issues – contaminants, fisheries, and patterns of development. The report is available at <http://www.gulfofmainesummit.org>,

OCEAN MANAGEMENT RESEARCH NETWORK: Mike Butler reported that the next OMRN National Conference was scheduled for 29 September - 1 October 2005 in Ottawa. The 1st call for papers has been issued. For information on the OMRN, access <http://www.omrn.ca>.

SOUTHERN GULF OF ST. LAWRENCE COALITION ON SUSTAINABILITY: David Boyce reported that the AGM of the Coalition is scheduled for 22-23 April in Montague, PEI. The focus of the workshop and tradeshow associated with the AGM will be onsite sewage. (For information on the SGSLCS, access <http://www.coalition-sgsl.ca>.)

9. ***ADJOURNMENT***

ACZISC Meeting #44 adjourned at 1630 hrs on Thursday, 20 January 2005.