

# **A Summary Report of the GeoNOVA Conference 2005**

**Sponsored by**

**GeoNOVA Secretariat  
Service Nova Scotia and Municipal Relations**

**and**

**Geomatics Association of Nova Scotia (GANS)**

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## The GeoNOVA Conference

The GeoNOVA Conference is intended by its sponsors as an opportunity to provide updates on GeoNOVA's Program activities to interested users of Nova Scotia's wealth of geomatics information, as well as to interact with the users and to receive valuable feedback from them. The 2005 Conference covered a number of topics including:

- *Geomatics and Freedom of Information and Protection of Privacy*;
- *Internet Mapping Applications - do's and don'ts*;
- *Technology Showcase* highlighting recent projects and new products from local geomatics companies;
- Messages from our federal partners *GeoConnections*, the *National Land and Water Information Service*, and the *Geomatics Industry Association of Canada (GIAC)*; and
- It also provided an opportunity to participants to receive updates on developments in the field of Geomatics and to contribute to important provincial geomatics policies such as *Data Distribution and Pricing* and *Coordinate Referencing*.

This document is a summary of the proceedings of the GeoNOVA Conference 2005.

The GeoNOVA Conference Agenda is included in this document as Appendix "A." Brief summaries of the individual presentations by speakers are also included in this document (see Table of Contents for Session Titles and names of speakers). If available, copies of the slide decks used by the speakers may be found on the GeoNOVA Website at <http://www.geonova.ca/>. Very brief summaries of discussions following presentations are also included at the end of each respective Session as listed in the Table of Contents. Suggested actions which may be helpful in the organization of future conferences are included within the Session summaries, and are listed in Section 8 in abbreviated form.

## **DAY 1**

### **1. Welcome and Opening Remarks**

(Gretchen Pohlkamp, SNSMR)

Participants were welcomed to the first ever GeoNOVA Conference by Gretchen Pohlkamp, Acting Executive Director of the Registry and Information Management Services Division, Service Nova Scotia and Municipal Relations. Ms. Pohlkamp is also Chair of the GeoNOVA Steering Committee and the senior official in SNSMR responsible for its geographic information services program.

Ms. Pohlkamp thanked the conference speakers in advance for their time and effort in preparing for this conference and for their valued contributions to GeoNOVA. The importance of improving access to data through the GeoNOVA Portal was emphasized, and the contributions of all stakeholders in this regard were acknowledged. Data sharing, the provision of services, and a client centric approach, as espoused and practiced by GeoNOVA across three levels of governments, was acknowledged as a model being used by the department, the province, and nationally. It was also acknowledged that GeoNOVA's mantra of "collect data once closest to source and use many times" is being held up as a model for data integration nation-wide. Indeed, it was stated that the GeoNOVA effort is being recognized at the national level by comments such as "Nova Scotia - the little province that could."

Kudos were also offered to the GeoNOVA Steering Committee for its continuing guidance, advice, and its ongoing review of its own role and that of GeoNOVA. Stakeholder representation is greatly valued and essential to the development and growth of GeoNOVA.

Ms Pohlkamp indicated that GeoNOVA has the tools; it now needs to spread the word. One such outreach initiative announced was a series of presentations on GeoNOVA (by its Secretariat) to local Schools to inform students of career opportunities and the utility of geomatics data, in its various forms, to a multitude of users.

The Organizing Committee of Ed Light, Dave Keefe, Colin MacDonald, Jeff Parkes, and Shira Jackson were acknowledged and thanked for their efforts in preparing for this conference. The co-sponsorship of the Geomatics Association of Nova Scotia was also acknowledged and appreciated.

## 2. Geomatics and Freedom of Information and Protection of Privacy

(Session Chaired by Brad Fay)

GeoNOVA seeks to raise awareness of the Freedom of Information and Protection of Privacy Act (FOIPOP), the role it plays now, or could play in the future. On occasion partners and users have expressed concern over accessing data, some believing that access to some data is hampered by the FOIPOP Act. The following quote is perhaps a fair statement of the current thinking of many of today's geomatics data and information users.

“Today's information technology has given us the power to do things we couldn't even imagine doing a decade ago. Unfortunately, because we couldn't imagine the possibilities, we couldn't consider their implications or consequences either.”

This session **Geomatics and Freedom of Information and Protection of Privacy** was divided into two parts. The first part consisted of two separate presentations – one by each of the two presenters Francine Comeau and Robert Doherty. The second part was a discussion of four “case studies”

### Presentations:

**Privacy** was the title of a presentation delivered by Francine Comeau, the FOIPOP Administrator with the Nova Scotia Department of Justice since 2002. **The slide deck for this presentation will be hosted at Website: [WWW.GeoNOVA.ca](http://WWW.GeoNOVA.ca).** The following points are highlighted in the presentation:

- The application of the FOIPOP Act to Geomatics is sometimes unclear;
- If FOIPOP applies users should seek clarity, guidance, and use best practices;
- The FOIPOP Act provides the right to access records in public agencies including municipalities; provides the right to collect personal information; protects personal information; and is not the only law governing personal information;
- The law provides rules/processes for accessing records, and outlines obligations for the collection, use, disclosure, security and correction of personal information;
- A FOIPOP record can be a hard copy, electronic, graphic, audio or video, singly or included in data bases (does not include data base programs);
- Personal Information is recorded information about an identified individual. Examples can include: name; address; phone number; race; colour; national origin; religion; identification number or symbol; fingerprints; blood type; history of health care, education, employment, finances, crimes etc.;
  - Probably not Personal Information: listing of civic addresses in a geographic area;

- Possibly Personal Information: Number of suicides in a county, or number of students taking remedial math in XXX School;
- Definitely Personal Information: voters list, name **and** address.

**Geomatics Issues** was the title of a presentation delivered by Robert Doherty, the Freedom of Information and Protection of Privacy *Coordinator* for the Nova Scotia Government since 1996. **The slide deck for this presentation will be hosted at Website: [WWW.GeoNOVA.ca](http://WWW.GeoNOVA.ca).** The following points are brought forth in the presentation:

- There are Federal/Provincial/and Private Sector laws regarding privacy issues:
  - *Federal* – The Personal Information Protection and Electronic Documents Act (PIPEDA).
  - *Provincial* – Freedom of Information and Protection of Privacy Acts (FOIPOP) in all provinces.
  - *Private Sector* – Privacy tort legislation.
- There are issues for Inter-jurisdictional and Public Private Partnership (P-3) projects.
- Privacy laws do not always apply if:
  - Exclusively business information;
  - Statistical group large enough not to identify an individual;
  - Public record information of government;
  - Public Registry information in private sector, if used or disclosed for the same purpose as collected.
- Privacy Issues re electronic data:
  - Data matching potential – linking information;
  - Data mining activity;
  - Security and Safety – unauthorized or inappropriate third party use;
  - Inter-jurisdictional information sharing – fear of unauthorized use or disclosure;
  - Capacity to change character of information – what once was public individually (manually) is now on-line;
  - Electronic flows were not envisioned by drafters of policies/laws.
- Questions to be asked about where Geomatics fits?
  - What information in the record is personal?
  - What information is property information only?
  - Who has access to the information and how is it given?
  - Is the information a matter of public record?
  - Is the information maintained in a public registry?
  - For what purpose will the information be used?
  - Is the information an integration of layers of data, and does that change the data?
- Lack of clarity on application of rules:
  - Personal vs. Property not always clear;
  - If personal may be public on “one off” basis;
  - Multi-electronic access may not be public;

- May be public registry personal information (PI), but further use and disclosure may be different and integrated information may be “new” PI.
- Meeting Privacy Obligations - Suggestions:
  - General:*
    - Separate Personal from Private Information;
    - State access, use and disclosure policy;
    - Conduct a Privacy Impact Assessment.
  - Public Records/Registry Solution:*
    - Search on “one off basis”
    - Use licensing agreements to limit use/disclosure.
  - Inter-jurisdictional Solutions:*
    - Enter into information exchange agreements under statutes.
- Examples of Personal Information:
  - Confidential but not Personal Information:*
    - A map showing protected sites in Nova Scotia
  - Public Record Personal Information*
    - A list of property owners by civic address;
    - Registered property instruments by name.
  - Personal Information:*
    - Property owners + civic address + legal instruments + map of protected sites (two or more linked).
- Summary:
  - Statutes govern Personal Information;
  - Property and statistical information usually not Personal Information;
  - Situation leaves issues and questions;
  - Electronic aspect leaves privacy uncertainty;
  - Privacy compliance can be ensured by establishing information status up front, or by conducting a Privacy Impact Assessment.

### **Case Studies:**

The second part of the Geomatics and Freedom of Information and Protection of Privacy session consisted of a workshop involving four case studies portraying four progressively complicated scenarios related to working with and/or using a variety of types of geomatics data and information. Information presented earlier by the two speakers was to be used as the basis for working through these four case studies. A scenario was presented with a series of questions to be answered about each scenario. The questions included a variation on those which follow and were adapted to describe the appropriate scenario:

*What are and where are the databases required for this work?*

*Is there personal information involved in this case, if so what is it?*

*Is the personal information publicly available?*

*For what purpose was the information originally collected?*

*Are there any FOIPOP issues that prevent the proposed action from being taken?*

*Do other statutes have to be considered?*

*Is there another way the proposed action can be taken?*

This task was willingly taken up by the participants. During the course of the exercise many of the issues about what is, or what is not Personal Information were discussed. Alternative methods of handling issues were sometimes identified and discussed. Other alternatives were discussed or proposed to accomplish a similar end result. The exercise generated considerable dialogue and provided reinforcement of the points presented earlier.

The completed Case Study work sheets from the exercise, with a set of suggested answers can be found in “Appendix B.”

**Discussion:**

The ensuing discussion of privacy issues covered a broad spectrum - from discontent with the quality and accuracy of data to more focused queries about what constitutes a privacy issue and what to do about it. Many comments and queries specifically focused on clarification of issues encountered by a participant which may or may not be issues for FOIPOP. The comments and questions varied according to individual area of interest (e.g. municipal planner, private sector, plus some concerns about individual personal privacy issues). Responses to all queries were suggested by the two presenters. Rather than providing definitive answers, queries were treated as examples, and the presenters suggested appropriate thought processes that should be considered by the participant to deal with the issues. The essence of the responses was included in the presentations as itemized above. However, by example and discussion the presenters helped to clarify, somewhat, the application of process and rules to a rather complicated and fuzzy set of issues.

The workshop exercise, together with the discussion held following the formal presentations, greatly reinforced the material presented earlier. As a result participants were left with some rather simple guidelines in addition to the points listed above. Some of the sage advice offered included:

- Think the issue through – use common sense;
- Ask yourself - Is this the right thing to do?
- Beware, when you start to integrate or link data sets;
- When you are using two or more items of Personal Information together you may be getting close to the line;
- If in doubt – check it out – consult a lawyer;
- Consider doing a Privacy Impact Assessment.

**Observation:**

The Geomatics and Freedom of Information and Protection of Privacy session was very informative. Most participants perhaps view the topic somewhat akin to a dental appointment; we would rather not think about the topic much at all, but we know that it is the right thing to do - a case of short term pain for long term gain. From the level of participation and discussion, it is believed that the participants benefited greatly from this session. The session was highly rated by conference participants in the Conference Evaluation Survey. As a follow on to the conference *it is suggested that GeoNova consider partnering with NS Department of Justice and/or GANS to schedule a series of Freedom of Information and Protection of Privacy workshops to carry forward on this very worthwhile initiative.*

### **3. Internet Mapping Applications**

(Session Chaired by Colin MacDonald, Program Administration Officer, SNSMR)

The Internet Mapping Session hosted four interesting information presentations from four distinct information users: the private sector, a planning commission, municipal government, and provincial government. The applications were as varied as the users, but all were tied together by using web-browser technology. They highlight four of many Internet Mapping Applications that can and are being used within the broader field of Geomatics.

A brief summary of each of the presentations follows. If readers wish to obtain additional information on any of the presentations they may do so by accessing **the slide deck for the presentations which will be hosted at Website: [WWW.GeoNOVA.ca](http://WWW.GeoNOVA.ca)**.

**A Web-Base Municipal Geographic Information System** presented by Roger Sturtevant, Executive Director, Annapolis District Planning Commission.

Roger provided an overview of the development of a web-based Geographic Information System to meet the planning needs of a very progressive and active District Planning Commission. The presentation reviewed the organizational relationships, the funding partners, a variety of contributing partners including municipal, provincial, federal governments, as well as the academic and planning communities. He further identified the administrative structure under which the project was managed, including co-project management between himself and a contracted project manager, with the numerous management tools and schema required to implement the project. He concluded by listing original data sets brought to the project, a list of present and anticipated benefits, as well as plans for further enhancement of the project.

**Nova Scotia Department of Natural Resources - Experience with the “Pain and Gain” of Internet Mapping** presented by Jeff Poole, Geologist/GIS Specialist, Mineral Resources Division, N.S. Department of Natural Resources.

Jeff indicated that the N. S. Department of Natural Resources has been operating an Internet Mapping Service for over five years. Jeff listed numerous applications that are available on the Internet, and described two phases of creating the IMS – building it and implementing it. The many “hoops” to be navigated both internally and externally were mentioned as well as the plethora of policies and rules for placing information on the Internet. The Pains and Gains were well documented. The pains are perhaps part of the learning curve, but the gains itemized are substantial e.g. better and faster access to data, one stop shopping, faster applications, and less expensive data dissemination via Internet access vs. colour printing. This presentation contained much good advice and many helpful hints.

**MAPEZE** presented by Ron Nelson, President and Paul Giles, IT Manager, MAPEZE Inc. Halifax.

The MAPEZE presentation provided a background to the development of MAPEZE's Proprietary Mapping and Routing Engine (2005). The presenters took us through the evolution of the product from 1998 to the present including: ESRI Route Maps 2001-2002, and ARCIMS- CARIS – Map Guide – Intergraph, and others 2003-2004. The pros, cons and challenges of each were itemized. Technical issues such as: Lasso Search, Routing over Aerial Photography, Document Management Interface, Asset Tracking, Emergency Response, and Real Estate Listing were discussed. MAPEZE Proprietary Mapping Engine also features Custom Routing, Custom Marking, Zoom; and time, travel and stop calculations. The presentation described the very efficient and user friendly tools which can be used in numerous applications.

**HRM Internet Mapping – More Gains than Pains** presented by Sonya Chittick, GIS Specialist and Frank King, GIS System Analyst, Halifax Regional Municipality.

These two presenters represent municipal government from the largest municipality in the province. HRM decided to move to Internet Mapping for three reasons: faster service, cost efficiency, and less PC administration. They described an historical evolution of time, hardware, software versions, and data sources over five years, culminating in the current very satisfactory configuration of a UNIX Server with 4 GB of RAM running ArcIMS v9.1. They now proudly boast of operating “multiple theme-based sites,” with a large range of data, and increased job efficiency. An efficient training program was also listed as one the gains responsible for this successful implementation. They are now looking forward to DDE (Digital Data Exchange), ArcGIS Server, and Public IMS.

### **Observation:**

This session was rated highly by the participant evaluation survey. Some feedback received indicated that while these presentations are greatly valued, some participants wished to have shorter and more results oriented “what” presentation vs. the technical details of the “how” presentation. These comments will be forwarded to the organizers in planning for future events. Unfortunately conference time constraints did not permit additional discussion of these presentations.

*It is suggested that future GeoNOVA events should consider the suggestions noted above.*

#### 4.

### Technology Showcase

(Session Chaired by Jeff Parks, President, GANS)

This Technology Showcase was provided as an opportunity for local vendors and industry associations to demonstrate their latest products and project results. It also provided Conference participants the opportunity to be briefed on current activities and projects, as well as new and leading edge products, and future trends in the geomatics industry.

As with the previous session a brief summary of each of the presentations follows, but readers may view the detailed presentations for additional information. **The slide deck for these presentations will be hosted at Website: [WWW.GeoNOVA.ca](http://WWW.GeoNOVA.ca).**

**ESRI Canada Limited** presented by Eric Melanson, Atlantic Regional Manager, ESRI Canada Limited, Halifax.

Eric presented a short overview on ESRI Canada Limited, a quick look at the direction that GIS is moving toward, some new products and their usage by local clients, and his view on what is coming down the pipes from ESRI. ESRI Canada is Canadian owned. It has been operating in Canada for 20 years, and employs over 220 staff. Some of the areas that Eric saw GIS technology moving towards included: enhance data integration, evolution of Internet services, a Geodata rich society with enhanced Web Servers and other enabling technologies. Some of the new products listed were enhanced Desktop GIS, more embedded GIS components, GIS Servers and Mobile GIS. Some of the future innovations included Image Servers and Viewers with on the fly georeferencing capability, Integrated time (History) in GIS, Animation in all applications, enhanced cartographic capabilities and management of Terrain Surfaces and Distributed Data.

**Hyperspectral Data International Inc., GeoNOVA Conference 2005** presented by Herbert Ripley, President, Hyperspectral Data International Inc., Halifax, NS.

Herb Ripley presented an overview of his firm, its capabilities, sample projects, areas of operation, affiliations, and some looming challenges. HDI is a local firm providing airborne hyperspectral surveys, digital aerial photography, data analysis, and mapping services. HDI has been in business since 1997. During that time HDI has worked nationally and internationally and has been acclaimed as a world recognized expert in its field. Its primary area of work and research has been in coastal zone mapping with specialization in coral reefs, invasive algae research, and benthic habitat mapping. Recent challenges identified by HDI have arisen in the form of competition from academic research groups. Several instances are cited of research groups having acquiring advanced equipment to collect data vs. contracting with private sector firms already in the business of data collection. The question being posed is where does data collection end and research begin?

**Intergraph Canada - GeoNOVA Technology Showcase** presented by Bruce Hall, Senior Applications Engineer, Security, Government and Infrastructure (SG&I) Division, Intergraph Canada.

Bruce provided an overview of Intergraph, its services, spatial technology, types of business, and anticipated future technology. Intergraph has been operating since 1969 out of its headquarters in Huntsville, Alabama. Intergraph provides a full suite of software systems integration and services in all areas of spatial technology. Some areas of emphasis are specifically in the public safety and security area, geospatial work flow solutions, management consulting technology, integrated solutions, parcel maintenance tools, etc. Some areas where future technology applications are expected were Native Spatial Databases, Web Services – Seamless Geospatial Computing, and Mobile Work management and integrated dispatch systems.

**Association of Nova Scotia Land Surveyors - History of Surveying** presented by Fred Hutchinson, Executive Director, Association of Nova Scotia Land Surveyors, Halifax.

Fred Hutchinson, speaking as Executive Director of the Association of Nova Scotia Land Surveyors (ASSLS), provided a short status report on the surveying profession in Nova Scotia. The ANSLs has been operating in the province since 1910. Fred presented many interesting facts and statistics on the profession, indicating for instance that the total current membership numbers 197 surveyors, with an approximate average age in the mid-fifties. This statistic points to a potential shortage of surveyors within the province in the very near future. Surveyors are “the doers” who not only embrace technology, but are sometimes required to be among the early responder at many disasters. A future development anticipated within the profession is the implementation of the requirement on surveyors to submit survey plans in digital format. As a very active member of both associations, Fred concluded with a call for potential members to join and support associations such as the Association of Nova Scotia Land Surveyors and the Geomatics Association of Nova Scotia.

**CARIS - GeoNOVA 2005** presented by Don Spencer, Manager, Spatial Components Division, CARIS, Fredericton.

Don Spencer provided background information on CARIS then proceeded to share information on the broad range of both Marine and Land Information Systems and services provided and supported by CARIS. CARIS has over 150 employees in three countries; Canada, USA, and the Netherlands. It boasts of over 4000 solutions spread across 70+ countries, and it is aligned and compliant with International Standards; OGC and CGDI. *CARIS Marine Solutions* include Hydrographic and Oceanographic Chart Production, Hydrographic Survey Processing and Visualization, and Port and Waterway Management. These applications are serviced by a subset of named applications. Similarly, on the land side the *CARIS Land Solutions* offer a wide range of Land Registration and Cadastral Systems, Geographic Information Portals, Enterprise and Municipal Solutions.

## **Observation:**

The Technology Showcase presentations were much appreciated by the participants. As someone asked, where else other than perhaps at a trade show could you hear from most of the leading geomatics vendors in one relatively short session? And they come to you! Comments for improvement in future sessions include: shorter presentations by vendors with fewer “commercials,” and with a focus on perhaps only one or two leading edge - here and now - innovative applications, together with hints about the immediate future direction of the technology. These suggestions will be forwarded to the conference organizers for use in future planning.

*It is suggested that future GeoNOVA events should consider the considerations noted above.*

## DAY 2

### 5. **Federal Update**

(Opening remarks by Jeff Parks, President, GANS)  
(Session Chaired by Ed Kennedy, President, GIAC)

GeoNOVA was originally established with partnership and sharing as integral components of its mandate. Early on, the partners were primarily other provincial government departments and the federal government. As the program evolved the partnerships expanded to include municipalities, non-government organizations (NGO's), academia, and the private sector. GeoNOVA, in keeping in touch with its roots, wishes to keep in touch with its original partners, and to be updated regularly on the ongoing activities of its major stakeholders. Accordingly, GeoNOVA organized a session dedicated to an update on recent activities and initiatives undertaken by its federal partners. In so doing it was able to accommodate a cross-country survey being undertaken by the Geomatics Industry Association of Canada in association with GeoConnections Canada.

This session includes: a federal update featuring two presentations, one each on the **GeoConnections Program** and the **National Land and Water Information Service (NLWIS)**, chaired by Ed Kennedy, President, **Geomatics Industry Association of Canada (GIAC)**; and a **Geomatics Policy Workshop** also chaired by Ed Kennedy of GIAC. **As with earlier presentations, the slide deck for these presentations will be hosted at Website: [WWW.GeoNOVA.ca](http://WWW.GeoNOVA.ca).**

**GeoConnections Phase II: A Preview** presented by Craig Stewart, A/Director, GeoConnections Secretariat, Natural Resources Canada.

The GeoConnections Phase I, launched in 1999 was a \$60M, 5 year, stakeholder assisted federal/provincial/territorial program to build the Canadian Geospatial Data Infrastructure (CGDI). Phase II, announced in June 2005, also a \$60M, 5 year, user driven program, is intended "... to support decision making on a broad range of issues, particularly health, public safety, sustainable development, the environment, and issues of importance to Aboriginal people." Phase I of GeoConnections built the CGDI; Phase II will enhance and apply it. Working with existing communities of practice GeoConnections will: provide needed databases; maintain and operate geomatics standards, policies and infrastructure; while focusing on user needs, content, technology, and geomatics information policy. Looking forward, Phase II recognizes a long term commitment to CGDI, as well as developing a user driven system, providing technology support for common needs, and providing common solutions to be customized by users. Announcements on GeoConnections activities were anticipated in October – November 2005.

**Progress and Future Plans for NLWIS** presented by Denis Douville, Project Manager, National Land and Water Information Service, Agriculture and Agri-Food Canada.

The National Land and Water Information Service Project, an Agriculture and Agri-Food Canada led initiative with Federal/Provincial/Territorial and Municipal government partners is designed to provide on-line access to geospatial information in support of local and regional land use planning. The project provides a national focus for the collection and sharing of key decision making information and also serves to advance the objectives of the Agricultural Policy Framework (APF). The APF is a federal/provincial/territorial agreement to “...*make land available to land use decision-makers, decision tools and environmental information to support and inform local and regional land use planning and management.*” The NLWIS Project will help to improve environmental policies, decision making, public awareness, and access to agricultural information. NLWIS’s outreach will share data, information, expertise, and services with the public, industry, NGO’s, and academia. The project will be on-line by January 2006 with additional services being rolled out over a four year period. Working Groups consisting of partnership members will provide advice, guidance, and input to the implementation of NLWIS.

**Geomatics Policy Workshop** chaired by Ed Kennedy, Managing Director, Geomatics Industry Association of Canada (GIAC).

Halifax was the seventh in a series of cross-Canada Geomatics Policy Workshops being held by GIAC in partnership with GeoConnections as part of Phase II of the GeoConnections Program. The objectives of the workshops were to:

- Better align the policies and practices of government and industry for improved business efficiency and economic development;
- Gain a consensus within the geomatics industry and user community on key issues for emphasis in improving the Canadian Geospatial Data Infrastructure;
- Foster debate on the role of geographic information and related technologies and what key geomatics initiatives are required now;
- Consider how to actively promote a co-operative and partnership attitude amongst the community of practice;
- Provide an informal venue for business leaders and geomatics professionals across all sectors to meet and exchange ideas.

The Halifax Geomatics Policy Workshop was an abbreviated version of the normal roundtable discussions on business issues regarding use of geographic information that GIAC is conducting nation-wide. The discussion questions posed (see below) were modified somewhat from the normal workshop; however, a similar focus was maintained:

- the identification of the strengths and weaknesses of geographic information; and
- the related technologies to solve business problems and identify existing organizational policy, operations, and funding inhibitors to resolving these issues.

The participants were divided into relatively equal, manageable groups, and asked to respond to the two questions:

1. What are the relative strengths and weaknesses of spatial information technologies and data in solving broader business issues?
2. What are the key policy, organizational/ operational and financial inhibitors to the broader acceptance and use of spatial information technologies?

At the conclusion of this process a representative sample of the groups reported on the results of their respective group. Worksheets were collected by GIAC for later compilation into a consolidated list. The lists produced by some of the participants at the Nova Scotia Geomatics Policy Workshop are attached as Appendix “C,” and are preliminary compilations of notes taken during the workshop. No attempt has been made to consolidate the lists or to perform any other analysis on this data – that task is being undertaken by GIAC and will be published on their Website. **The final compilation is available on the GIAC Website:**

<http://www.giac.ca/site/presentations/Halifax/index.htm>.

### **Observation:**

The federal up-dates by GeoConnections and Agriculture and Agri-Food Canada, on the National Land and Water Information Service Project were very informative. NLWIS is a very ambitious and welcomed project which fills part of the void left by the ageing of the *Canada Land Inventory* manuscript and published map series of the past. Both presentations were welcomed by participants and provided valuable insights into activities at the federal level. The announcement and update on funding for Phase II of the GeoConnections program was eagerly anticipated by many conference participants. It is a sure bet that all participants will be watching their emails over the next weeks and months for Announcements of Opportunity regarding possible project funding. Also the remark - perhaps casual- that Nova Scotia is viewed by some in the federal system as a leader in geomatics initiatives did not go unnoticed either.

*It is suggested that conference participants subscribe to the GeoConnections Announcements of Opportunity for current activities regarding projects and funding.*

## 6.

### **Data Distribution and Pricing**

(Session Chaired by Brad Fay)

Nova Scotia developed a Data Distribution and Pricing Policy in November 1995 under the title: **A Policy for the Distribution and Pricing of Government Owned Geographic Information for the Province of Nova Scotia**. Events and technology have overtaken some of these policy recommendations, but many of them are still relevant today. It is believed that the information and discussion arising from this session may help to kick-start the process of updating this policy.

Speakers, invited by the conference organizers, were asked to discuss “Policies” that they are now responsible for or answer to; or to share experiences in working with someone else’s policy or Business Model.

A summary of the general recommendations contained in the Distribution and Pricing Policy was quickly reviewed for the benefit of participants prior to hearing the presentations. After hearing the speakers’ presentations, both the conference participants and the speakers were invited to discuss issues related to data distribution and pricing. **As with earlier presentations, the slide deck for the formal presentations will be hosted at Website: [WWW.GeoNOVA.ca](http://WWW.GeoNOVA.ca).**

**Data, Application, and Service Delivery via the Web** presented by Tobias Spears, Informatics Branch, Department of Fisheries and Oceans.

Tobias Spears shared many of his experiences with data, applications, and service delivery on the Web to clients in the DFO Science and Oceans Branches. The following were some of the many interesting facts shared: DFO does not charge a fee to the general public for data access, DFO has a strong national data management policy, DFO acknowledges that researchers may hold data until their work is published, and views GIS as a “self serve” data dissemination tool. DFO is compliant with international standards and attempts to be rigorous in their application. Two departmental data policies and challenges were discussed: the Government of Canada Security Policy, and the policy requirement to publish most material in both official languages. The later policy results in additional dissemination costs and delays to the publication of data. Some internal cultural issues identified were: reluctance to create new external pathways to access data, the usual ownership issues “it’s my data” resulting in data sourcing problems, and a lack of awareness of standards. A very reassuring comment during the presentation was “No is not an appropriate response” with respect to data access at DFO.

**Data Licenses and the Academic Community – a view from Dalhousie University** presented by James Boxall, Director, GIS Centre and Curator of the Dalhousie Map Collection, Dalhousie University.

There has been a decade long “Data Liberation” struggle between the academic sector and many geomatics data suppliers. Academia wanted free (no cost) access to geomatics data for educational and research use and data suppliers wanted to charge a fee for it as

per established policies. James Boxall has been one of the leading proponents of this struggle at the local, national and international levels. As a result of these efforts a licensing agreement was reached, one about which Dalhousie University is very happy. During the same decade Dalhousie University has been building its GIS Centre which is reported to be one of the largest in the Country. This presentation reviewed the process involved in both initiatives – data liberation and the GIS Centre at Dalhousie University. The License agreement is a welcome development for both parties: the suppliers get their data “out there” and see the results of research generated; and the university has access to the data for the intended uses. The university promotes the data and its use to students, staff and other users, and monitors potential abuse of the data. The relationship is mutually beneficial. The GIS Centre at the university has access to Canadian data, has increased the number of courses available to its patrons, and has significantly increased the geomatics research at the Masters and PhD levels.

**Data Distribution and Pricing** presented by Doug Foster, Director of Planning, Cape Breton Regional Municipality (CBRM).

This presentation addressed quality and pricing of data. The opening statement that the price of data should be increased rather than lowered initially shocked participants. The kicker, however, was the suggestion that the price should be paid to the user rather than to the supplier. The rationale for this argument was that users provide a very valuable service to the suppliers when they use the data. In the course of their use, omissions, inaccuracies, and errors are sometimes noted, and if reported to the supplier can greatly enhance the value of the original data. It was acknowledged that there is need in some instances to charge for data. However, it was suggested that if a case can be made for funding the collection of the data initially, then a case could perhaps also be made for maintaining the data. A plea was made for closer collaboration between users and suppliers of data to ensure that data collected better serves a multitude of downstream uses. This requires that more and better consultation takes place at and between all stakeholders to ensure that data accuracy can be improved.

**GeoNOVA Days Panel on Distribution and Pricing Policy** presented by Malcolm Shookner, Coordinator, Rural Communities Impacting Policy (RCIP) Project: a partnership between the Coastal Communities Network (CCN) and the Atlantic Health Promotion Research Centre (AHPRC) at Dalhousie University.

This presentation outlined the background and relationships of the RCIP, CCN and AHPRC. It specifically highlighted the need for community groups to access, use, and research social science data in order to influence and develop policies that contribute to the health and sustainability of their respective communities. The presentation underscored the ongoing data needs of community groups in their everyday involvement with policies. The community groups have specific, ongoing needs for access to more and better data and for training in their usage. In addition, the need was identified for access (possibly from provincial government sources) to the expertise required to access, process, interpret, and analyse these data at the community level.

Specific comments were offered in response to statements contained within the policy document *A Policy for the Distribution and Pricing of Government Owned Geographic Information for the Province of Nova Scotia*. The comments offered in relation to the data distribution and pricing policy again stated the case on behalf of non-government organizations (NGO's) – community organizations. As regards data distribution, a feeling of frustration was expressed at being left “out of the loop” as data users. The need was expressed to broaden the present data distribution and pricing policy to accommodate community users and to link to other community initiatives such as “Community Counts”. Communities were identified as bona fide users of the data in support of their own planning and development initiatives, with a legitimate need to develop value-added products and applications at the community level. As regards pricing, even a nominal fee for data has presented a major barrier to communities due to tight budgets. Communities also identified an urgent need for access to on site, capacity building, and technical expertise.

**A Discussion on Data Distribution and Pricing Policy** presented by Danny Gray, Director, Geographic Information Services, Service Nova Scotia and Municipal Relations.

Danny Gray described events leading up to the development of the 1995 Data Distribution and Pricing Policy, the establishment of the Map Fund, and provided a follow up status report on where we are today, current trends, influencing factors, and some upcoming issues with respect to Nova Scotia's primary databases. Today hard copy data distribution and fees remain unchanged. Major advances have been made to provide on-line data access - data sharing agreements have been reached with the municipalities and the education sector. Some of the current trends in the geomatics sector include: ongoing discussion on fee vs. free data; recent studies show that fees inhibit data use and that benefits accrue from low or no cost data.

Partnership agreements between federal / provincial / territorial (F/P/T) agencies abound. The Geomatics Accord signed in 2001 covers data collection, maintenance and distribution under the aegis of the Canadian Council on Geomatics (CCOG). A partnership agreement (another F/P/T) with GeoBase, to exchange and provide free access to geomatics infrastructure data was implemented. The GeoNOVA Portal was launched in 2004 as a gateway to Nova Scotia's geomatics data and information. And, it was announced that the entire Nova Scotia Topographic Database in digital form is now available at no charge to end users. Upcoming activities reported include; a CCOG Task Group on property data, possibly leading to a National Property Layer; a GIAC Task Group to study cadastral information from an industry perspective, and the still unresolved issue of how to maintain the geomatics databases with shrinking revenues.

### **Observations:**

The presentations in this session were very highly rated by participants. Some suggested that there might have been fewer presentations and more time allocated to discussion. Due to time constraints the discussion following the presentations was somewhat limited.

However, there appeared to be consensus that the data distribution and pricing policy needed to be revised, and that pricing models may be influenced by the method of data dissemination. There was an expressed desire to make the policy more encompassing, both its terms of its subject matter and in consultations during its revision.

In general it was felt that a broader consultation with stakeholders results in the creation of improved policies and much more useful data. This suggests a broader consultation by GeoNOVA with its stakeholders on numerous issues other than data distribution and pricing issues. In short, GeoNOVA should be more inclusive. Several models for government consultation with stakeholders and for stakeholder input on specific issues are available.

The Nova Scotia Land Use Committee (LUC) from which GeoNOVA evolved is one such model. Initially it comprised the Land Use Committee, the decision making group at the deputy ministerial level. The LUC was supported by a Working Group at the managerial level which was the administrative group that decided on issues to be researched, and that forwarded completed reports and recommendations to the LUC for decision and approval. Numerous task groups (ad hoc committees) at the working and technical levels researched the issues, reported and recommended solutions up the pipe for approval, whereupon that task group was disbanded and moved on to other tasks. That is one example of a system that worked. Others include: the series of dedicated theme “Nodes” of the GeoConnections Program; the policy and standards initiative in support of the Nova Scotia Civic Address File; and numerous provincial and territorial geospatial data oversight advisory committees that adopted a similar structure to the LUC to accomplish the same end result.

*It is suggested that, given the limited resources available to GeoNOVA consideration be given to the establishment of “theme” task groups consisting of members drawn from its broad stakeholder base; to discuss, evaluate, report and recommend on action for the assigned theme.*

*It is suggested that GeoNOVA give serious consideration to revising its Data Distribution and Pricing Policy, as early as possible, and in consultation with a broad cross section of its stakeholders.*

*It is suggested that GeoNOVA consultation, in general, be more inclusive.*

A need for broader distribution of geospatial data to users, at low or no fee, was expressed. DFO Canada provides free access to their data and strive to get data out and used. Users provide an essential data verification service to data suppliers through the use of the data. In the course of their use, data omissions, inaccuracies, and errors are noted, and if reported to the supplier can greatly enhance the value of the original data. Likewise, broader consultation with potential users may result in the creation of a product that more closely meets more of the potential user’s needs.

The needs of Communities and other NGO's were highlighted. Communities feel left out as data users. They consider themselves to be the closest to the public and as such have needs for data for planning and development initiatives as well as for value added products and applications. Due to budgetary constraints, communities cannot purchase data and sometimes have to forego its use entirely. For the same reason they lack the resources for technological expertise to use and interpret data. Governments at all levels are looked upon as a first source of this expertise and for technology transfer.

Data sharing and exchange at the government level is rapidly being implemented. A need was expressed to quickly extend this to all stakeholders. Federal /Provincial/Municipal agreements have been established and by all accounts are working well. Similar agreements have been implemented with academia; and the results of long and arduous negotiations are reported to be mutually satisfying.

*It is suggested that GeoNOVA consider extending its data distribution exchange agreements to the broader cross section of its stakeholders (e.g. Communities).*

*It is suggested that GeoNOVA consider broad based data distribution to bona fide data users (e.g. Communities) as one means of verifying and maintaining its primary databases.*

## 7. **Coordinate Referencing**

(Session Chaired by Bert Seely, Manager, NS Geomatics Centre, SNSMR)

A Nova Scotia Coordinate Referencing Policy was produced in draft form in 1995. This policy was not implemented, due in part to the evolving status of coordinate referencing in the province. Some of the activity underway at that time involved the implementation of a new coordinate referencing network called the Nova Scotia High Precision Network. At the same time, consideration was being given to updating the coordinate reference datum upon which the network is based. Also, a study on this topic was undertaken and it produced even more recommendations. This combination of factors made for a difficult environment in which to seek and reach agreement on the numerous recommendations suggested in the draft policy, not the least of which was user acceptance/readiness.

This Session highlighted the discussion of a revised draft of the Nova Scotia Coordinate Reference Policy together with a demonstration of a new Nova Scotia Coordinate Transformation Application which can be used on-line to transform coordinate reference point values between the several datums in current usage in the province.

**As with earlier presentations, the slide deck for the formal presentations will be hosted at Website: [WWW.GeoNOVA.ca](http://WWW.GeoNOVA.ca).**

**A Spatial Referencing Policy for Nova Scotia** presented by Bert Seely, Manager, Nova Scotia Geomatics Centre, Service Nova Scotia and Municipal Relations.

Bert Seely provided a background to the activities that have taken place since the release of the draft Nova Scotia Coordinate Referencing Policy in 1995. A decision was taken then to formalize the policy. This action required that a study be undertaken to: recommend on administrative and technical issues, recommend a course of action, and to outline an implementation plan. The study delivered in 2003, recommended: implementation of formal adoption of the Nova Scotia Coordinate Referencing System; adoption of <sup>1</sup>NAD83 (CSRS) as the reference standard; implementation of a formal process to engage and train stakeholders; that <sup>2</sup>SNSMR provide NAD83 (CSRS) coordinates for the old network <sup>3</sup>(NSCCS) to assist stakeholders; and adoption of the <sup>4</sup>UTM map projection for scales of 1:10,000 and smaller - and the <sup>5</sup>MTM 3 degree map projection for scales larger than 1:10,000. All of these recommendations were incorporated into the revised draft: *A Spatial Referencing Policy for the Province of Nova Scotia*. Steps required to finalize the policy include: circulating the revised policy for stakeholder comment and feedback; finalizing the document and submitting it for formal government approval; and communicating the Policy to stakeholders by October 1, 2006; and then to carry out a review of the policy on a 5 year cycle.

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<sup>1</sup> North American Datum of 1983(Canadian Spatial Referencing System)

<sup>2</sup> Service Nova Scotia and Municipal Relations

<sup>3</sup> Nova Scotia Coordinate Control System

<sup>4</sup> Universal Transverse Mercator

<sup>5</sup> Modified Transverse Mercator

**A Demonstration of the Nova Scotia Coordinate Reference System Coordinate Transformation Application (NSCRS - CT App)** presented by Allen Flemming, Coordinate Control Officer, Nova Scotia Geomatics Centre, Service Nova Scotia and Municipal Relations.

Alan Flemming demonstrated recently developed software used to transform coordinate reference points from one datum to another. As many as three datums may be in use in various applications in the province. This Nova Scotia Coordinate Transformation Application was demonstrated live and performed as designed. The software is available on the Internet. If users have only a few values to transform it can be used “self serve.” The NSGC has offered to assist with the performance of the work for transformations of larger applications which may present more of a challenge. Participants were invited to test the software, and asked not to hesitate to contact NSGC to discuss any problems related to its use. NSGC also offered to provide any advice or assistance with problems, or clarification of other issues related to the Nova Scotia Coordinate Reference System.

**Observation:**

These presentations appeared to bring a sense of direction to developing and implementing a Coordinate Referencing Policy to support the implementation of the new Nova Scotia Coordinate Referencing System that it supports. The presentations also add the timeframe for its implementation. Participants greeted this news eagerly.

Coordinate referencing is a very technical and sometimes misunderstood issue to many data users, particularly to users who do not come from a geospatial background. The geospatial integrity of a geomatics infrastructure is essential, and its rigor reverberates throughout the entire infrastructure. It subsequently affects the geospatial accuracy of all of the primary databases such as: road networks, topography, property ownership, civic addressing, built upon that infrastructure, as well as the wide range of theme and other resource maps that overlay these primary map databases. For these reasons we should all be very concerned about this issue.

The Nova Scotia Geomatics Centre has the professional expertise to deal with these issues and has been doing so for many years. The NSGC is presently in the process of transforming its coordinate referencing system datum from the commonly used Average Terrestrial System 1977 (ATS77) to NAD83 (CSRS). In addition, some users are still using the NAD27 Datum (an earlier Datum, the use of which is perhaps carried forward from those using older versions of the 1:50,000 National Topographic System maps). In short, there may be as many as three different Datums being used in the Province to define a coordinate point. This situation sometimes creates mass confusion to some users attempting to link and match data sets based on the different Datums.

In the above presentations the speakers have described the transition from the old to the new coordinate referencing system scheduled for implementation by October 1, 2006, and the transformation of coordinate reference points from one datum to another. Assistance (on-line and personal) is being offered to users to ease this transition. It is

strongly recommended that users with concerns in this regard take advantage of the assistance being offered.

*It is suggested that GeoNOVA monitor and report on the progress of the development of the NS Coordinate Referencing Policy on behalf of its stakeholders to ensure that it remains on schedule.*

*It is suggested that GeoNOVA encourage and publicize the offer from the NSGC to provide assistance to GeoNOVA stakeholders in the transformation of coordinate reference points from one datum to another.*

### **Conference Closing Remarks**

(Edward Light, Manager, GeoNOVA Secretariat, SNSMR)

A Conference Wrap Up is a necessary send off for participants, speakers, chairs, organizing committee, sponsors and all who have contributed to the success of a conference. All were duly acknowledged and thanked by Ed Light. Ed also expressed a special thank you to Shira Jackson, Colin MacDonald, Dave Keefe, Jeff Parks and Brad Fay for many of the unseen but vital activities that contributed to the success of the Conference. Vendors who generously donated prizes that were awarded to participants (who completed the evaluation forms), were also acknowledged and thanked. It is to be hoped that the prizes were not the only reason that participant attendance at the closing session was so good.

Looking ahead, Ed indicated that all notes, recommendations and feedback received from all sources during the conference will be reviewed and evaluated as part of the future planning for GeoNOVA. Special mention was made of our federal partners' contributions to the Conference. It was again indicated that the GeoNOVA Secretariat is looking forward to additional dialogue with all GeoNOVA partners and to a continuation of work with all of them in the near future.

**8. Observations, Comments and Suggestions**  
 (Compiled by Brad Fay and submitted to  
 GeoNOVA and the Geomatics Association of Nova Scotia)

By all measures the GeoNOVA Conference 2005 was an extremely successful event. The following observations, comments and suggestions have been invited by the sponsors of the conference - GeoNOVA and the Geomatics Association of Nova Scotia (GANS). Some of the points raised may be subjective, but all are intended to assist with the way forward and the continued success of GeoNOVA. There were numerous expressions of thanks and praise to the sponsors for hosting this event. The level of participation is also very complimentary to the organizers and sponsors of the conference.

**General:**

The total number of registered participants was 121 - see Appendix “D” for a listing of the names and affiliations. The table that follows classifies the participants according to familiar groupings. In some instances the participants may be data producers or data users – some are both. The data are not available to further classify participants.

<b>Grouping</b>	<b>Number of Participants</b>	<b>Percentage % of Total</b>
Federal	11	09%
Provincial	45	37%
Municipal	32	26%
Private Sector	27	22%
Non- Government Orgs. (NGO’s)	5	04%
Academia	1	02%
<b>TOTALS</b>	<b>121</b>	<b>100%</b>

*The above distribution indicates that additional emphasis should be placed on “marketing” and “promoting” GeoNOVA to the Academic, NGO, Federal Government sectors, and to a lesser extent to the general public.*

Numerous participants inquired about receiving proceedings from the conference and particularly a listing of names, affiliations and the “coordinates,” of conference participants, if available, to enable ongoing networking.

*It is suggested that this summary together with the listing of conference attendees be forwarded to all conference participants.*

The majority of participants favoured a one day conference (event) as opposed to two days. Travelers from the extremities of the province can attend a one day event with no

(or at worst a single) overnight expense rather than the two overnights required for a two day event.

*It is suggested that future GeoNOVA conferences (events) be of one day duration.*

Numerous participants expressed the view that the conference be held annually or at least in alternate years to the year when the Geomatics Atlantic Conference is being hosted in Nova Scotia. The format of the conference should be carefully considered with a view to separating conference type presentations and workshop type events. Workshops can be held much more frequently and on a number of popular topics.

*It is suggested that GeoNOVA consider an annual geomatics event whether it is a conference, or more frequent workshops and may be held jointly with others.*

Workshops can be hosted and used as fundraisers for those requiring funding (e.g. GANS, etc.), and can be jointly hosted by GeoNOVA, GANS, and private sector or other theme specialists. There were specific requests for more workshops, a sampling of which are listed below. The length of the list cries out for consultation with stakeholders to determine the current priorities from among so many suggested topics.

*It has been suggested that GeoNOVA consider hosting workshops on some of the following topics: demonstration type workshops; linking tabular data to geospatial data; Freedom of Information and Protection of Privacy; Educational Workshops; resource mapping and users; management and proprietary information; the Needs of Government, Private Sector, User Community; organized show & tell; GIS Systems; documents and records management; current projects; software; additional input from municipalities; etc., etc.*

The venue, the meals, and the parking were deemed to be satisfactory to most participants, with one or two exceptions. There were suggestions that if breakout sessions are arranged for future conferences, that a more suitable venue be considered. It was also suggested that a more central location possibly together with an arranged social event would allow for better networking. However, it could also be argued that the current more isolated venue, may have improved the attendance for the full session (fewer distractions).

*It is suggest that the venue for future conferences be considered in light of the above and other considerations.*

### **GeoNOVA Conference Program:**

Conference participants were requested to evaluate the Conference. Thirty – eight (38), or just over 30%, of participants returned completed evaluation forms. The individual sessions (not presentations) were rated on a scale of 1 – 5; with **1** being **Poor** and **5** being **Excellent**. The rating scores for all of the sessions combined ranged from 3.6 – 4.2. These ratings are so close that it will suffice to state that the participants were well pleased with the program presented to them. However, there were a number of

comments to the effect that some presentations could have been abbreviated somewhat, and that the time limits on presenters in other sessions should have been more closely monitored. These are comments that should be noted so that the conference's reputation is retained and enhanced for the future events.

*It is suggested that future GeoNOVA events should consider the suggestions noted above.*

## **Suggestions to the GeoNOVA Organizing Committee and Sponsors of the GeoNOVA Conference 2005**

(derived from participant's input and conference evaluation forms)

- **The distribution of sectors represented by the conference participants indicates that in future additional emphasis should perhaps be placed on “marketing” and “promoting” GeoNOVA to the Academic, Non Government Organizations, and Federal Government sectors, and to a lesser extent to the general public.**
- **It is suggested that this summary document together with the listing of conference attendees be forwarded to all conference participants.**
- **It is suggested that future GeoNOVA conferences (events) be of one day duration.**
- **It is suggested that GeoNOVA consider sponsoring an annual geomatics event whether it is a conference, or more frequent workshops; and these may be sponsored jointly with others.**
- **It is suggested that GeoNOVA consider hosting workshops on some of the following topics suggested by conference participants:**
  - demonstration type workshops,
  - linking tabular data to geospatial data,
  - Freedom of Information and Protection of Privacy,
  - Educational Workshops,
  - resource mapping and users,
  - management and proprietary information,
  - the Needs of Government - Private Sector - User Community,
  - organized show & tell,
  - GIS Systems,
  - documents/records management,
  - current projects,
  - software,
  - additional input from municipalities,
  - etc., etc.
- **It is suggested that planning the venue for future conferences be considered in light of the participants' comments outlined in Section 8, as well as other considerations.**

- It is suggested that planning the content for future GeoNOVA events should consider participants' comments outlined earlier in this Section.
- It is suggested that GeoNOVA consider partnering with NS Department of Justice and/or GANS to schedule a series of Freedom of Information and Protection of Privacy workshops which build on this very worthwhile initiative.
- It is suggested that conference participants subscribe to the GeoConnections Announcements of Opportunity for current activities regarding projects and funding assistance for a variety of application.
- It is suggested that GeoNOVA give serious consideration to revising its Data Distribution and Pricing Policy, as early as possible, and in consultation with a broad cross section of its stakeholders.
- It is suggested that GeoNOVA consultation, in general, be more inclusive.
- It is suggested that, given the limited staff resources available to GeoNOVA, consideration be given to the establishment of "theme" task groups consisting of members drawn from its broad stakeholder base; to discuss, research, evaluate, report and recommend on action for the assigned theme.
- It is suggested that GeoNOVA consider extending its data distribution exchange agreements to the broader cross section of its stakeholders (e.g. Communities).
- It is suggested that GeoNOVA consider broad based data distribution to bona fide data users (e.g. Communities and others) as one means of verifying and maintaining its primary databases.
- It is suggested that GeoNOVA monitor and report on the progress of the development and implementation of the NS Coordinate Referencing Policy on behalf of its stakeholders to ensure that its implementation remains on schedule.
- It is suggested that GeoNOVA encourage and continue to publicize the offer from the NSGC to provide assistance to GeoNOVA stakeholders in the transformation of coordinate reference points from one datum to another.

**GeoNOVA Conference 2005**

**Agenda**

## GeoNOVA Conference 2005

### AGENDA – Monday, October 3, 2005

<b>Time</b>	<b>Activity</b>
<b>8:30AM</b>	<b>Registration and Morning Coffee</b>
<b>9:00AM</b>	<b>Welcome and Opening Remarks</b> Gretchen Pohlkamp – Chair, GeoNOVA Steering Committee
<b>9:15AM</b>	Geomatics and Freedom of information and Protection of Privacy The influences the FOIPOP Act might have on access to geomatics data.  Robert Doherty, FOIPOP Coordinator, NS Department of Justice Francine Comeau, FOIPOP Coordinator, NS Department of Justice
<b>10:15M</b>	<b>Refreshment Break</b>
<b>10:30AM</b>	<b>Geomatics and FOIPOP II</b> Session Continued.
<b>12:00PM</b>	<b>Lunch Provided</b>
<b>1:00PM</b>	<b>Internet Mapping</b> An opportunity for those developing Internet mapping solutions to share their experiences and provide insights into the “pain and gain” of developing Internet mapping websites.  Roger Sturtevant, Executive Director, Annapolis District Planning Commission Jeff Poole, Geologist/GIS Specialist, NS Department of Natural Resources Ron Nelson, President, and Paul Giles, IT Manager, MAPEZE Inc. Frank King and Sonya Chittick, GIS Specialist, Halifax Regional Municipality
<b>2:20PM</b>	Refreshment Break
<b>2:40PM</b>	<b>Technology Showcase</b> Local vendors and industry associations demonstrating their latest products and project results.  Eric Melanson, Atlantic Region Manager, ESRI Canada Herb Ripley, President, Hyperspectral Data International David Males, Senior Sales Representative, CAD/CAM Systems Ltd Bruce Hall, Senior Applications Engineer, Intergraph Canada Fred Hutchinson, Executive Director, Association of Nova Scotia Land Surveyors Don Spencer, Manager, Spatial Components Division, CARIS
<b>4:00PM</b>	<b>Closing Remarks</b> Ed Light – Manager, GeoNOVA

## AGENDA – Tuesday, October 4, 2005 (Morning)

<b>Time</b>	<b>Activity</b>
<b>9:00AM</b>	<b>Opening Remarks</b> Jeff Parks, Geomatics Association of Nova Scotia
<b>9:05AM</b>	<b>Federal Messages – GIAC, GeoConnections, and NLWIS</b>  Ed Kennedy, Managing Director, Geomatics Industry Association of Canada - Workshop Introduction and Overview
<b>9:20AM</b>	Craig Stewart, A/Director, GeoConnections Secretariat, Natural Resources Canada - The Renewed GeoConnections Program
<b>9:40AM</b>	Denis Douville, NLWIS Project Manager, National Land and Water Information Service, Agriculture and Agri-Food Canada - Progress and Future Plans for NLWIS
<b>10:00AM</b>	Refreshment Break
<b>10:20AM</b>	<b>Geomatics Policy Workshop</b>  Roundtable Discussions on Business Issues regarding use of geographic information – This discussion will focus on the strengths and weaknesses of geographic information and related technologies to solve business problems and identify existing organisational policy, operations, and funding inhibitors to resolving these issues.
<b>11:50AM</b>	Wrap Up
<b>12:00PM</b>	<b>Lunch Provided</b>

Afternoon sessions on following page.

## **AGENDA – Tuesday, October 4, 2005 (Afternoon)**

<b>1:00PM</b>	<p><b>Data Distribution and Pricing Session</b> Discussions specific to a Nova Scotia Provincial Data Distribution and Pricing Policy.</p> <p>Brad Fay - Opening Remarks</p> <p>Tobias Spears, Portfolio Manager, Architecture Testing and Tools Portfolio, Department of Fisheries and Oceans James Boxall, Director, GIS Centre, Dalhousie University Doug Foster, Director of Planning, CBRM Malcolm Shookner, Project Coordinator, Rural Communities Impacting Policy Project Danny Gray, Director, Geographic Information Services, Service Nova Scotia and Municipal Relations</p> <p>Floor discussion to follow.</p>
<b>2:45PM</b>	<p><b>Refreshment Break</b></p>
<b>3:00PM</b>	<p><b>Nova Scotia Coordinate Reference Policy</b> Session will highlight the new Nova Scotia Coordinate Reference Policy with a demonstration of new Nova Scotia Coordinate Reference Application.</p> <p>Bert Seely, Manager, Nova Scotia Geomatics Centre Allen Flemming, Coordinate Control Officer, Nova Scotia Geomatics Centre</p>
<b>4:00PM</b>	<p><b>Closing Remarks</b> Ed Light</p>

## **Freedom of Information and Protection of Privacy**

### **Case Studies**

**From GeoNOVA Conference 2005**  
**Geomatics and Freedom of Information and Protection of Privacy Workshop**

**Case Study #1**

Wildlife International is currently working to preserve specific wetlands that have been identified as needing wildlife protection. The organization has a program in place whereby it raises money to support its conservation efforts.

Wildlife International approaches the Department of MegaInformation for access to its Property Information and the Department of Environmental Resources for access to the wetlands data.

Wildlife International wants to use the owners name, civic and mailing address, and wetlands data without the owners' knowledge or approval. This information will assist Wildlife International in its fund raising efforts.

**Questions and discussion points**

**1. What are and where are the databases required for this work?**

Data Required	Data Location
Property location and owner information - linked to mailing address of owner, not resident	Property Records Database - Land Registration Office; SNSMR, Nova Scotia Geomatics Centre, and/or Property Online - (subscription or by paying access fee)
Civic Address Data - the Nova Scotia Civic Address File or Property Online	SNSMR, Nova Scotia Geomatics Centre
Assessment Database (for mailing address - although such information may be gleaned from other sources)	- Property Online, Assessment Services and or the Assessment Online service
Delineation of wetland areas - to be correlated with the property ownership information	Wetlands Data - Department of Natural Resources or Department of Environment (depending upon jurisdiction)
Watershed Boundaries	NS Department of Environment and Labour
Tax information from municipality - have both civic and mailing lists	Individual Municipalities

**2. Is there personal information involved in this case? If so what is it?**

Yes

- Owners name and mailing address and civic address (if linked to owner)

**3. Is the personal information publicly available?**

Yes

- Owners names (Land Registration Office)
- Mailing address is not publicly available information - at least not from the Assessment Database - some are available through Canada 411 (Property Online has info and available through subscription or access fee)
- Civic address is available for all properties.

**4 Are there any FOIPOP issues that prevent Wildlife International from carrying out its solicitation?**

Yes

Access to the owner's mailing address through a government data base and subsequent use for solicitation makes this request a FOIPOP issue. The integration of personal information for reasons other than that for which it was collected is not permitted. The request also includes the fact that the information is to be used without the owner's knowledge or approval.

Some argument (probably weak) may be made that the purpose includes protection of the environment; however, management of resources is an exclusion in the solicitation clause.

**5 Is there another way for Wildlife International to do its solicitation?**

WI can use the publicly available information and possibly use Canada 411 to obtain mailing addresses. They could also post a notice around the properties, or cross reference Canada 411 and Land Registry ownership information, but this would probably have a great inaccuracy. Look at door-to-door campaign or ask for government to contact on behalf of WI.

**From GeoNOVA Conference 2005**  
**Geomatics and Freedom of Information and Protection of Privacy Workshop**

**Case Study #2**

The marketing firm Rooms to Go, in the City of Grand Expectations wishes to acquire data to help identify rooming houses. More specifically Rooms to Go wishes to identify residential buildings with three or more rentable rooms. It further wishes to locate only those residential buildings that are within two kilometers of the University of Prosperity. The purpose of acquiring this data is to establish a database of available rooming houses for prospective university students. With this data Rooms to Go will establish a fee for service for students seeking accommodations near the University of Prosperity.

**Questions and discussion points**

**1. What are and where are the databases required for this work?**

Data Required	Data Location
Property locations - including university properties and those of land holders identified from the assessment data)	Property Records Database - Land Registration Office; Nova Scotia Geomatics Centre, SNSMR, and or Property Online - (subscription or by paying access fee)
Civic addresses	Nova Scotia Civic Address File, Nova Scotia Geomatics Centre, SNSMR,
Residential property assessment	Assessment Database – SNSMR, Assessment Services and or the Assessment Online service
Phone numbers	Telephone Directory, Canada 411, and many other sources

\*Unreliable data, only 50% or less of rooms available for rent are listed as being located in rooming houses.

**2. Is there personal information involved in this case, if so what is it?**

Yes

- Property owners name, mailing address and phone number
- Landlord status

**3 Is the personal information publicly available?**

Yes

- Owner's name
- Mailing address is not publicly available information - at least not from the Assessment Database. Rooms to Go would have to access the owners of the property at some point to perhaps assist in determining the availability of rooms within a given property.
- Commercial property designation not publicly available?

**4 Are there any FOIPOP issues that prevent Rooms to Go from carrying out its solicitation?**

Yes

Access to the owners name and all address details would be required en masse and not one address at a time. At present, one can search "bulk" by Street or Community name. This may be in conflict with FOIPOP. You can obtain the owner's name through the assessment data base. Data requested, if provided, would not be for purpose collected in first place.

**5 Is there another way for Rooms to Go to do its solicitation?**

Yes

They could seek all landlords to contribute their information to a Rooms to Go database and offer a service to the landlords.

They could advertise the service to students at the university.

They could carry out windshield survey in area (thereby determining multi-unit dwellings, but not rooming houses).

Could distribute to postal code area.

**From GeoNOVA Conference 2005**  
**Geomatics and Freedom of Information and Protection of Privacy Workshop**

**Case Study #3**

John Carmoney is the Director of Development for Automart Ltd., a marketing company that sells data base information and research to consumer products firms. At the moment, he has a great idea that he is going to pitch to the Federal, Provincial and Municipal governments. John is going to propose that the Registry of Motor Vehicles data base of automobile owners be cross referenced with a Canadian Customs and Revenue Agency database of income levels by postal code, and in turn be linked with a municipality's list of building permits issued during the previous calendar year. John was also going to ask the RMV to screen the vehicle owner database, and limit the data only to those owners of vehicles valued in excess of \$40,000.

He plans to meet with all levels of government in the next week, but isn't sure what questions he will receive. He thinks that because of the aggregate level of the information, and the fact that some of it is public (e.g. building permits), that there shouldn't be a problem.

**Questions and discussion points**

**1. What are and where are the databases required for this work?**

Data Required	Data Location
Vehicle owners	Registry of Motor Vehicles, SNSMR
Income levels and revenue data by postal code	Canada Revenue Agency Statistics Canada
Building Permit Files / Database (for building permits issued the previous year) - maintained by municipality	Individual Municipalities - or the Nova Scotia Civic Address File at NS Geomatics Centre, SNSMR, if it stores the last update of building types and a user could query the updates provided in the last year.
Mailing address	Numerous sources

**2. Is there personal information involved in this case, and if so, what is it?**

Yes

- Vehicle owner information screened to the detail requested (name, address, \$\$ value of vehicle, whether or not he/she had received a building permit)
- Income level information if it is against the complete postal code
- Building permits, if the property owner name is associated with the resulting report.
- Mailing address

**3. Is the personal information publicly available?**

Yes

- Income data can be acquired from Statistic Canada based upon levels, but is not at a level of detail being sought by John. (i.e. 6-digit postal code) - would only get 3-digit postal code
- Individual building permits can be obtained, but usually not en masse unless there is a printout list

**Are there any FOIPOP issues that prevent John from carrying out his work?**

Yes

- Using and disclosing personal information in databases for purposes not collected (in this case, solicitation) is not allowed.

**5. Is there another way for John to carry out his work?**

Probably not. He could match vehicle ownership by 3 digit postal code and income level by 3 digit code, as the data would be sufficiently aggregated to anonymize it (i.e. no longer personal information)

## From GeoNOVA Conference 2005 Geomatics and Freedom of Information and Protection of Privacy Workshop

### Case Study #4

Ivan Databucks has a great idea that will reap the government significant revenues and he is sure will get him a promotion at the Department of Megaservices.

Ivan believes that all of the information is pretty much public information. Ivan's proposal is to combine several data bases of information and set up an on-line paid subscription service for potential users. The data bases that he proposed to combine were:

1. Names, location and owners of designated heritage properties and properties not designated, but listed by municipalities as sites of historic interest. The data would also include graphic views of the interiors and exteriors of the structures on each site;
2. What each particular property was zoned, and allowable uses under the zoning; (public information)
3. Property assessment values and an indication of the status of the tax account; (public information)
4. Any legal instruments (mortgages, leases, liens) registered on the property;
5. An indication as to whether the owner(s) were Canada Pension recipients and whether or not they had Canadian military services; and
6. A notation as to whether the property was listed as a protected site.

The proposal will need the cooperation of other departments, as well as federal and municipal departments and agencies, but Ivan has worked with other governments in the past and is confident that they will be cooperative. Ivan has also set up a meeting with Mary Infospec, and thinks it will be a short one because he cannot imagine there will be a problem.

#### Questions and discussion points

1. What are and where are the databases required for this work?

Data Required	Data Location
Names, locations, and owners of designated heritage properties and not designated properties, but listed by municipalities as sites of historic interest. Graphic views (photos, plans, etc.) of the interiors and exteriors of the structures on each site	- Property Online (for property locations and owners) - Nova Scotia Civic Address File (for civic address data) - Canadian Heritage (Agency)
Property zoning and allowable uses under the zoning	- Property Online, Assessment Database or Municipalities
Property assessment values and the status of the tax account	- Assessment Database (for residential property type)
Any legal instruments (mortgages, leases, liens) registered on the property	- Property Online (for property locations and owners)
Are the owners Canada Pension recipients and do they have Canadian military services	- Veterans Affairs - Canada Revenue Agency
Is the property listed as a protected site	- Canadian Heritage (Agency)

\*Heritage sites - different at all three levels - municipal, provincial, federal

**2. Is there personal information involved in this case, if so what is it?**

Yes

- Owners name and mailing address, and any linkages with assessment value, heritage and historic interest property designation.
- Canada Pension and Veteran status information, any instruments registered against the property
- Photographs of properties

**3. Is the personal information publicly available?**

Yes

- Owner's name but not when linked to assessment value, heritage designation, etc.
- Mailing address is not publicly available information - at least not from the Assessment Database
- Heritage Property designation and possible historic interest designation
- Tax information is public
- Once name is known, the mailing address sometimes available though Canada 411.

**4. Are there any FOIPOP issues that prevent Ivan from carrying out his work?**

Yes

Access to the owners name and all address details would be required en masse and not one address at a time. At present, one can search "bulk" by Street or Community name. This may be in conflict with FOIPOP. You can obtain the owner's name through the assessment data base. Data requested, if provided, would not be for purpose collected in first place.

**5. Do other statutes have to be considered?**

PIPEDA, Federal Privacy Act

**6. Is there another way for Ivan to carry out his work?**

Probably not.

**- Summary -**

**NS GIAC Policy Workshop (Worksheets)**

**Relative Strengths and Weaknesses of Spatial Information Technologies and Data in Solving Business Issues – GeoNOVA Conference 2005 Participants (Raw Data)**

Strengths	Weaknesses
Communication, visual	Coordinate Referencing System
Data, accuracy improved by users / public accessibility	Data, accuracy
Data, more analysis	Data, affordable
Data, access centralized	Data, availability
Data, accessibility	Data, available to private sector as well as public
Data, attribute information	Data, conversion to GIS ready
Data, currency	Data, cost
Data, higher demand / much data	Data, currency
Data, more	Data, duplication of
Data, quality of	Data, incomplete
Data, value placed on	Data, misuse of data
Engineering, planning and response	Data, quality of
GIS, improving constantly	Data, sharing
Maintenance, point of source	Data, sustainability
Mobile GIS	Data, unreliable
Partners	Maintenance, inadequately funded
Problem solving ability	Metadata, accuracy
Productivity, improvement	Metadata, maintenance
Public outreach, awareness	Metadata, poorly described
Resources, require additional	Metadata, weak
Revenue generation	Organization, poorly organized for use
Site selection	Projections
Standards, accepted	Resources, scarce
Technology, GIS a tool for non-technical users	Software, consistency
Technology, GIS a tool for policy and decision making	Standards, required
Technology, is ahead of data / policies	Standards, too many - lack of policing
Technology, overlay and integration	Technology, GIS technology currency
Time, saver	Training, lack of understanding

**Inhibitors to the Broader Acceptance and use of Spatial Information Technologies  
GeoNOVA Conference 2005 Participants (Raw Data)**

Inhibitors
Business case, core and ROI to funding
Cooperation, commitment to
Data, access - availability
Data, availability of data or need to be created
Data, cost of data
Data, maintenance - migration from legacy systems
Data, maintenance / revision require protocol for updating by creator
Data, simplify access to
Institutional, different levels of understanding
Institutional, inherent concept of ownership
Institutional, legal policy makers ignorant of technology
Institutional, protectionism of data
Institutional, time / effort not understood by management bean counters
Liability, issues
Licensing
Metadata, knowledge of
Organization, too complex - too many levels of government
Partnering, strength in numbers but OK in provinces / municipalities
Partnership, different views on data sharing
Policy, inconsistency - different approaches across departments
Pricing, issues
Privacy
Privacy, (FOIPOP)
Institutional, resistance to change
Resources, funding of \$60M not enough for GeoConnections
Resources, lack of investment in policy/government models / business models / partnership models / education and reeducation / lack of private sector input
Security
Software
Staffing, dedicated resource staffing
Staffing, job security
Technology, development – fast paced
Technology, duplication of effort (Made in Canada solution)
Technology, fear of one vendor (province muddled)
Technology, lack of recognition of value of GIS
Training, lack of time or desire

**GeoNOVA Conference 2005**

**Registered Participants**

## GeoNOVA Conference Participants, 2005

FIRST	LAST	COMPANY
Dawn	Allen	Parks Canada Agency
Shawn	Andrews	Municipality of Guysborough
Megan	Armstrong	Windsor-West Hants Planning Department
Peter	Avery	Municipality of Guysborough
Amanda	Bent	Town of Truro
Juanita	Bigelow	Town of Truro
Heath	Bishop	SNSMR
Nikki	Bis-Saunders	Interpretation Resources
Melissa	Bonin	Municipality of Lunenburg District
Jennifer	Boutilier	Halifax Regional Municipality
Bob	Bowlby	Natural Resources
James	Boxall	Dalhousie University, GIS Centre
Lenore	Bromley	Communications
Wayne H.	Burt	Natural Resources
Andrew	Cameron	Natural Resources
Tony	Campbell	Natural Resources
Sonya	Chittick	Halifax Regional Municipality
Mary	Clark Hahn	SNSMR/LRO
Marlene	Clements	Municipality of Kings County
Teth	Cleveland	SNSMR
Jim	Coe	Education
Francine	Comeau	Department of Justice
Bernie	Connors	Environment & Local Government
Chris	Davey	ESRI Canada
Roger	Dick	Optex Inc.
Robert	Doherty	Department of Justice
Denis	Douville	Agriculture & Agri-Food Canada
John	Duff	Eastcan Geomatics Consulting Limited
Steve	Duncan	Pictou Co. District Planning Commission
Richard A.	Eisner	Fisheries & Oceans Canada
Jami	Fay	Municipality of Chester District
Brad	Fay	Brad Fay & Associates
Dave	Finley	Service New Brunswick
Brian	Fisher	Natural Resources
Christa	Flanagan	CARIS
Allen	Flemming	SNSMR-NS Geomatics Centre
Doug	Foster	Cape Breton Regional Municipality
Steve	Frost	Natural Resources
Joanne	Fry	SNSMR
Chrystal	Fuller	Municipality of Kings County

Cliff	Gall	Municipality of Chester District
Adam	Gallant	Transportation & Public Works
Jim	Gannon	Halifax Regional Municipality
David	Gariepy	GIAL
Ed	Gerrits	Town of Wolfville
Susan	Giannou	DMTI Spatial
Paul	Giles	MAPEZE Inc.
Thom	Gillis	Natural Resources
Ed	Glover	Nova Scotia Power Inc.
Gary	Grant	NR Can
Danny	Gray	SNSMR-Geographic Information Services
Bernie	Gunning	SNSMR/Property Registration
Jennifer	Hackett	Fisheries of Oceans Canada
Bruce	Hall	Intergraph
Bruce	Hall	Intergraph Canada
Wayne	Hamilton	Education
Mark	Helm	Halifax Regional Municipality
Tracy	Horsman	Fisheries & Oceans Canada
Fred	Hutchinson	Association of NS Land Surveyors
Shira	Jackson	SNSMR-Geographic Information Services
Marsha	Jones	SNSMR - NS Geomatics Centre
William	Jones	HDI Inc.
Dave	Keefe	GeoNOVA
Ed	Kennedy	Geomatics Industry Association of Canada
Frank	King	Halifax Regional Municipality
Theresa	LeBlanc	The Confederacy of Mainland Mi'kmaq
Kevin	Legere	SNSMR-NS Geomatics Centre
Madelyn	LeMay	Town of Lunenburg
Ed	Light	GeoNOVA
Ann	Lindanger	Eastcan Geomatics Limited
Paul	Lumsden	Atlantic Air Survey Ltd.
Brian	MacCulloch	Department of Agriculture and Fisheries
Jason	MacDonald	Town of Amherst
Colin	MacDonald	GeoNOVA
Geordie	MacLachlan	Dept. of Agriculture & Fisheries
Leslie	MacMillan	Eastcan Geomatics Limited
David	Males	CAD/CAM Systems Ltd.
Craig	Marshall	The Confederacy of Mainland Mi'kmaq
Kera	McAllister	Nicom Ltd.
Julie	McKay	Service New Brunswick
Krista	McLarty	Natural Resources
Eric	Melanson	ESRI Canada
Andrew	Milton	Town of Amherst
Michael	Minick	Transportation & Public Works

James	Morrow	Transportation & Public Works
Corey	Nelson	ESRI Canada
Ron	Nelson	MAPEZE Inc.
Cathleen	O'Grady	Legal Services
Doug	Oliver	Natural Resources
Jeff	Parks	Birch Hill GeoSolutions
Roger	Plamondon	Pictou Regional development Comm.
Gretchen	Pohlkamp	GeoNOVA Steering Committee
Mark	Poirier	SNSMR - Municipal Services
Jeff	Poole	Department of Natural Resources
Annie	Raymond	Municipality of Pictou County
Glen	Reid	Public Works Gov't Services Canada
Suzanne	Richer	Suzanne Richer
Herb	Ripley	Hyperspectral Data International
Alva	Robinson	Halifax Regional Municipality
Britt	Roscoe	Cape Breton Regional Municipality
Kevin	Rudderham	SNSMR/LRO
Bert	Seely	SNSMR-NS Geomatics Centre
Connie	Sexton	SNSMR/LRO
Malcolm	Shookner	Rural Communities Impacting Policy Proj.
Andrew	Smith	Municipality of East Hants
David	Smith	Nova Scotia Geomatics Centre
Tobias	Spears	Fisheries & Oceans
Curt	Speight	Interpretation Resources
Ryan	Spence	Town of New Glasgow
Don	Spencer	CARIS, Spatial Components Division
Craig	Stewart	NR Canada, GeoConnections Secretariat
Mike	Strang	Public Works Gov't Services Canada
Roger	Sturtevant	Annapolis District Planning Commission
Dawn	Sutherland	Town of Wolfville
Mike	Thompson	Pictou Co. District Planning Commission
Susan	Till	Agriculture & Agri-Food Canada
Charlie	Williams	Department of Environment & Labour
Greg	Wilson	Transportation & Public Works
Chris	Wirvin	Natural Resources
Bert	Wood	Town of New Glasgow
John	Woodford	Municipality of East Hants