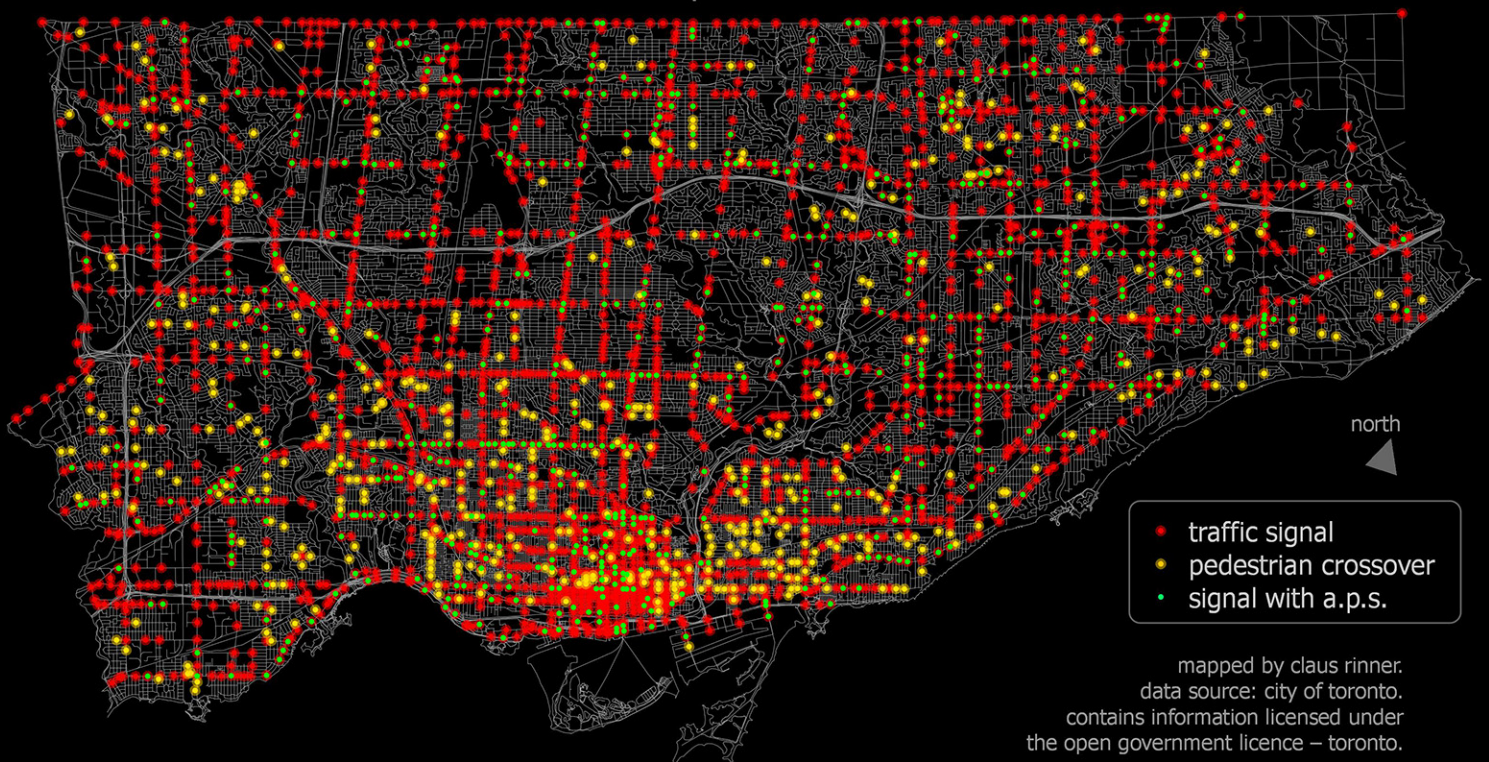


# Cartouche

Number 88, Winter/Spring 2014

Numéro 88, hiver/printemps 2014

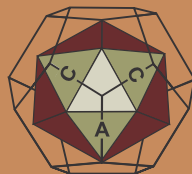
## toronto traffic signals april 2014



This map by Claus Rinner, a representation of traffic signals (red, or green if an “Accessible Pedestrian Signal” is present) and mid-block pedestrian crossings (yellow), was inspired by Ryerson Geography student William Davis. His white-on-black map of the same “Traffic Signals Tabular” dataset from the City of Toronto’s open data catalogue garnered attention in the social media. Claus experimented with a more colourful symbology and gave each signal-coloured dot a 50%-transparent halo to hint at the glare of nightly traffic lights. The map was created with QGIS 2.2 using the “Toronto Centreline” dataset for orientation.

Newsletter of the  
Canadian Cartographic Association

[www.cca-acc.org](http://www.cca-acc.org)



Bulletin de  
l'Association canadienne de cartographie

[www.cca-acc.org](http://www.cca-acc.org)

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"It was a shack, somewhere out on the outskirts of the Plains town of Scrote. Scrote had a lot of outskirts, spread so widely-a busted cart here, a dead dog there-that often people went through it without even knowing it was there, and really it only appeared on the maps because cartographers get embarrassed about big empty spaces."

- Terry Pratchett

**CCA Conference Program May 27th to May 30th, 2014**

Pick up your registration package at the main Congress Registration Desk, Congress Centre, Walker Complex.

Federation Wine and Cheese Reception in the Congress Expo, 4:00-5:00 p.m. daily.

CCA sessions are located in the Plaza Building, Room 600F, and there will be a CCA table nearby. Nutrition breaks for CCA registrants will be here.

CAG-sponsored GIScience sessions are also in the Plaza Building, in Room 410.

**Tuesday May 27th:**

- 1:30 – 3:30 p.m. Executive meeting.  
6:30 – 10:30 p.m. Icebreaker Reception (*Please join colleagues and friends for a convivial evening at [The Old Winery Restaurant](#) in the Red Room at 2228 Niagara Stone Road (Hwy 55) in Niagara-on-the-Lake. Cash bar and complimentary hors d'oeuvres. Transportation by bus from Brock University (and back) will be provided, leaving at 6 p.m. Please register in advance.*)

**Wednesday, May 28th:**

- 8:30 – 10:00 a.m. Applications and Development in GIScience I  
*Nutrition Break*  
10:30 – 12:00 p.m. Applications and Development in GIScience II  
*Lunch*  
1:30 – 3:00 p.m. (i) Special Panel on a Proposal for a Canadian Historical GIS Network  
(ii) Applications in Geospatial Technologies (student session)  
*Nutrition Break*  
3:30 – 5:00 p.m. (i) Evolving Models of Collaboration by Building Canadian Geospatial Relationships  
(ii) Developments in Volunteered Geographic Information, Web-based Mapping, and Remote Sensing  
5:30 – 7:30 p.m. Orienteering  
8:00 – 9:30 p.m. Pecha Kucha Night

**Thursday, May 29th:**

- 8:30 – 10:00 a.m. Cartography I: Data and Applications  
*Nutrition Break*  
10:30 – 12:00 p.m. Cartography II: Visualization  
*Lunch*  
1:30 – 3:00 p.m. Annual General Meeting  
*Nutrition Break*  
3:30 – 5:00 p.m. Planning for the Future: The Role of the CCA in the 21st Century  
5:00 – 7:00 p.m. President's Reception  
6:30 – 10:30 p.m. Banquet at Ravine Vineyard (*Please purchase banquet tickets separately from Congress registration; see the CCA website for information. Transportation provided, leaving Brock at 6:30 p.m.*)

**Friday, May 30th:**

- 8:30 – 10:00 a.m. Carto 2.0 Interest Group and Canadian Cartographic Association  
2020 Unconference  
*Nutrition Break*  
10:15 a.m. – Executive meeting

**PRESIDENT'S MESSAGE****Anna Jasiak****An Invitation to the 2014 CCA  
Conference May 27 – May 30, 2014**

On behalf of the executive of the Canadian Cartographic Association, I would like to invite all our CCA members, academic partners, colleagues in industry, students and all cartography and mapping enthusiasts to join us at our next annual conference. This year the conference is being hosted by Brock University in St. Catharines, Ontario as part of the broader academic gathering – [The Congress of the Humanities and Social Sciences](#). The conference theme this year is “Borders without Boundaries”.

Once again we have had the repeated privilege to collaborate with the [Canadian Association of Geographers](#) (CAG) and the [Environmental Studies Association of Canada](#) (ESAC) in coordinating the sessions and events of this year's conference. As in the past, our joint interest in Geography, Geomatics and geospatial data and analysis will no doubt be reflected in many stimulating sessions and workshops for delegates of all associations to participate in. CCA conference participants will be welcomed by a complimentary icebreaker reception which will be held at the Old Winery Restaurant in Niagara-on-the-Lake (Tuesday, May 27th, 2014), located in the heart of the local wine growing region. Please ensure that your intent to attend has been registered with Christine Earl.

Wednesday, May 28th is a full day! The CCA and CAG have jointly coordinated a GIScience Day that is intended to showcase a number of cartographic and Geomatics sessions. Shortly after the sessions, following CCA tradition, and under the guidance of Roger Wheate, we will be leading an Orienteering Event (May 28, 2014). We are thankful for the efforts of Loris Gasparotto of the Geography Department at Brock University in producing a map specifically for the event. The CCA welcomes all delegates to take on the challenge of demonstrating their map reading skills! Following the O-event, we are introducing a PechaKucha Night, jointly organized by the CCA, CAG and ESAC. This new event promises an exciting evening of fast paced and entertaining presentations. You

can learn more about the concept of a PechaKucha [here](#).

The joint Banquet is scheduled for May 29th, 2014 at the [Ravine Vineyard](#).

We once again appreciate the effort made by Julia Siemer to organize and lead the CCA [student map competitions](#), from which the map entries will be judged at the conference. I encourage you all to share the news of this competition within your college or university offices and classrooms. It is a wonderful opportunity for students to demonstrate their talent and cartographic skill – not to mention the benefit of being awarded a cash prize! The CCA website also discloses a number of other prizes and scholarships.

This being my last year as the President of the CCA, I have reflected on the accomplishments by our collective executive team. The most obvious changes are observed in the new, easy to navigate CCA website, and an ever growing social media community through the CCA Twitter feed and the CCA Facebook page. The primary goal for these changes was to pursue current avenues of connectivity with like-minded members of the Canadian and International cartographic and Geomatics community. It was also a means to engage with students and younger members of the Geomatics world.

My aim during this year's conference is to continue the discussion around the overall change the CCA can envision for itself in the 21st century. Incoming CCA President Christopher Storie and I have consciously included two separate conference session blocks, one following the AGM (May 29) and the other to be tabled on Friday morning (May 30), to invite the broader CCA membership into the conversation from which we will begin to synthesize your ideas into a concrete plan for a modernized CCA. In my future role as past-President, I am committed to this journey of change alongside Chris Storie and Vice President Julia Siemer. I have benefited

throughout my career by working alongside individuals from the public and private sector that are truly passionate about the art of cartography and the science of mapping and know that the field of Geomatics is more relevant in our lives now more than ever before. I have observed that same passion in our CCA community and am encouraged that CCA members will be able to voice their collective vision as leaders in the domain of Cartography and Mapping.

For those CCA members that are unable to travel to Ontario for the conference, there are plans to conduct a survey of opinions and recommendations that will be collated with the ideas collected during the conference. What I do know is we are constantly changing. That is a certainty. What we now need to address is 'how' we need to change. It is a process that will take time – it has started, and a solid group of individuals is leading the way. I invite you to join us in this important conversation.

## OUR VISION OUR FUTURE: CGCRT



### **A Call to Action for the Canadian Geomatics Community: Be part of building a Pan-Canadian Geomatics Strategy**

The Canadian Geomatics Community Round Table is an open, collaborative and voluntary group, made up of representatives from industry, academia, associations, NGOs and federal, provincial and territorial governments, spanning the geomatics (i.e., geographic, geospatial, location information) domain.

In January 2013, a group of Round Table participants carried out a scenario building exercise to propose an ideal future for geomatics in Canada and nominated a Steering Committee with the mandate to develop the first draft of a Pan-Canadian Geomatics Strategy. Since then, a first draft of the Strategy has been developed and is available on the [CGCRT website](http://cgcart.ca). The Steering Committee is looking for your feedback and contribution to create the definitive Pan-Canadian Geomatics Strategy and to contribute to an action and implementation plan.

#### **How to get involved:**

- Provide your thoughts on the draft strategy and/or the seven strategy dimensions on which it is based. You can read the draft strategy and learn more about each dimension by visiting the CGCRT website.
- Think about the issues outlined in the Strategy document, as well as possible solutions and send it to [communications@cgcart.ca](mailto:communications@cgcart.ca) before May 6th for inclusion in the next iteration of the Strategy document.
- Think about contributing a guest blog to the [cgcart.ca](http://cgcart.ca) site.
- Join and follow the discussion via our LinkedIn group
- Follow us on Twitter. (@cangeoRT #cgcart)

We are looking forward to hearing from you.

On behalf of the CGCRT Steering Committee,

James Boxall (Co Chair) and Peter Sullivan (Co-Chair)

## VICE PRESIDENT'S MESSAGE

Chris Storie



It is amazing that two years ago I was preparing to attend the meeting in Waterloo where I would be installed as the Vice President of the CCA. Now we are fast approaching Congress 2014 where I will be trying to step up to the standard that our soon to be departing president has left. I want to commend Anna Jasiak for her dedication and devotion to the association and the profession over these last two years. She has been a steadfast supporter, defender, and advocate for the association and I hope that I will be able to represent the association to the same level with the same passion and vigor that Anna has. I wish her much joy in her role of Past-President where she can sit back and smile as the incoming executive get to make all the hard decisions regarding the future direction of the CCA.

The last two years have been busy. Hopefully most of you reading this have experienced our new web presence. I want to personally thank Jed Zimmerman and Scott Emmons at the University of Northern British Columbia who were the lead designers of the site. I think they have done an exceptional job and I wish to publically thank them for all their hard work. Any errors in the site are those of the executive and not the designers. The site, however, is not done. Over the coming year(s) we are hoping to upload a complete set of Cartouche newsletters as a living archive of the association. We have digital versions dating back several years but we are also going to have to digitize a considerable number of older copies. We will be asking the membership for assistance in this endeavor over the coming months. We are also investigating the possibility/ability to have an e-commerce site built into our existing website to facilitate membership purchases.

We are moving forward on this lightly as there are security and costs issues that need to be addressed. Hopefully when it comes time for most of you to renew we will have a new process in place. Finally we will be launching a series of blogs that are linked with our IG groups. The intent is to have a website that contains static content (association materials) but also dynamic content that will be generated through participation in our blogs. A place where like-minded cartographers, GIS'ers, and map enthusiasts in general have a place to connect and collaborate.

As noted, Congress 2014 is fast approaching and we decided early on last year to join with Congress in hosting our annual conference. Having the conference in Southern Ontario meant easy access for most of our members either by plane or automobile, so we hope to see as many of you there as possible. Additionally we had two great people in the area that volunteered to act as our local planning committee. I want to thank Lori Martin and Christine Earl for the massive amount of work they did to get this conference up and running. I would also like to thank Dr. Marilyne Jollineau in the Department of Geography at Brock University. She is the local coordinator for the CAG event taking place alongside ours and for allowing us to join them at their banquet and to share our concurrent Geomatics day. Finally, we are trying something new this year. In conjunction with CAG and ESAC we are hosting a PKN (PechaKucha Night – google it) which promises to be a fun and interesting evening of talks.

I hope to see you all in St Catharines in May!  
Chris.

**EDUCATION INTEREST GROUP****Julia Siemer****Student Maps Draw Attention  
at CARTO 2013**

*The mission of the Mapping and GIS Education Interest Group of the CCA is to promote cartographic and GIS education at all levels in Canada. Based on various applied, academic, research, and pedagogical interests shared by its members the interest group facilitates constructive dialog among its members and the larger cartographic and GIS community. The interest group strives to organize sessions and/or workshops at the CCA's annual meetings, in which all cartographers and GIS users including students as well as educators are encouraged to participate.*

Last June, after the annual meeting in Edmonton, I contacted all winners of the student mapping competitions and asked for digital versions of their maps to be published in Cartouche. One student, Miry Choi from U of T, got back to me immediately but wasn't able to send her map right away as she was staying in Switzerland for an internship with the World Health Organization (WHO). Having worked in Switzerland as a cartographer myself, I was quite interested in the nature of her work and asked if she would write a short report about her experience during her internship. Luckily, Miry was willing to share her experience and agreed to have it published in Cartouche.

Based on my own experience as an intern - with the Cartography Section at the University of Sydney, Australia - I can only recommend to seek this kind of experience. Looking back at my time as a student, I can easily say this 6-month stay in a foreign country, exposed to a different culture, language, and new cartographic work environment has turned out to be one of the most memorable and valuable experience of my entire student life. Looks like Miry agrees with me...

**Exploring global health with GIS at the World Health Organization**

By Miry Choi (B.Sc., University of Toronto)

Last summer, I had the opportunity to intern with UNITAID, a global health financing organization nested in the World Health Organization's (WHO) headquarters office in Geneva, Switzer-



land, which works to increase access to treatments and diagnostics for HIV/AIDS, tuberculosis, and malaria in low-income countries. Working alongside brilliant people and beautiful minds at the lead coordinating authority for health within the United Nations system, my curiosity led me to knock on the doors of several departments utilizing GIS in tackling today's most pressing public health issues, such as tuberculosis, malaria, polio, and various tropical diseases. Those conversations led to the desire to extend my internship at the WHO, and I am currently doing a split internship with the Public Health Mapping and GIS programme, and the Department of Neglected Tropical Diseases.

My present internship has been designed based on my interest in global health and GIS. With the GIS programme, I am developing technical skills, where I am digitizing, as well as supporting the development of a geodatabase documenting world historical changes of national and sub-national boundaries and associated attributes. At the Department of Neglected Tropical Diseases, I am gaining exposure to how GIS is applied to better understand and address a public health problem, as well as strengthening my cartographic capabilities by mapping endemicity and reporting rates of Dracunculiasis in ten countries of the WHO African region. The dual aspects of this internship make for a perfect learning and growth opportunity, as it tailors to my interests, while catering to the needs of both departments at the WHO.

As with any internship, initiative and open-mindedness from the part of the student, and mentorship from the supervisor are key ingredients for a rewarding and meaningful learning experience. Although this internship initially stemmed from my own initiative, the curriculum was made possible by the attentiveness and flexibility of my supervisors invested in my growth. It is my hope that there will continue to be opportunities for GIS interns at the WHO, as GIS has a role to play in responding to the health challenges of local and global importance, and there is still much work to be done.

To learn more about the application of GIS at the WHO, please visit:

Control of Neglected Tropical Diseases ([www.who.int/neglected\\_diseases/](http://www.who.int/neglected_diseases/))

Global Health Observatory ([www.who.int/gho/](http://www.who.int/gho/))

Global Malaria Programme ([www.who.int/malaria/](http://www.who.int/malaria/))

Global Polio Eradication Initiative ([www.polioeradication.org/](http://www.polioeradication.org/))

*Julia is currently an Associate Professor in the Department of Geography at the University of Regina. Prior to this position she was the map editor and chief cartographer of the GIS-based Demographic Atlas of Albania, a first volume of the National Atlas of Albania. She has also held positions as cartographer in publishing houses in Germany and Switzerland and has taught cartography, GIS, and geography courses at University of Potsdam, University of Applied Sciences Berlin, Germany, and the University of Regina.*

*Her current research interests lie in the field of thematic and atlas cartography in general, and medical/health mapping, cultural and population mapping, and visualization of topographic base data for use in flood control in particular. Her education comprises a three-year apprenticeship as cartographer at Falk-Verlag publishing house, Hamburg, a Dipl.-Ing. in cartography from University of Applied Sciences Karlsruhe and a Dr. rer. nat. in cartography from University of Potsdam, Germany.*

## PAST PRESIDENT'S MESSAGE

**Gerald Stark**

### Greetings fellow CCAers!!!



I trust that all of you have made it through what one would call a rather robust winter weather season relatively unscathed.

As spring moves along I would like to inform the membership that this will be my last submission to Cartouche as a member of the CCA's Executive. The past seven years on the Executive Committee have been an exciting time for me, as I have been able to travel from one end of Canada to the other meeting fellow cartophiles, while hearing some truly innovative presentations on mapping related topics.

I am once again looking forward to much of the same this coming May as we meet for our annual general meeting and conference at Brock University in St. Catharines, Ontario. I hope to touch base with as many of you as I can.

As I depart my position, I would like to take this opportu-

nity to thank Clifford & Alberta Wood, Roger Wheate and the rest my fellow CCA members for their support and encouragement throughout my tenure on the on the CCA Executive Committee. The current make-up of the Executive Committee is one that I believe will bode well for the CCA. Our presence in the social media realm combined with a re-vamped website is something I see as a positive step in the right direction for the future of the Canadian Cartographic Association. I will continue as a member of our organization and you will no doubt see my name on emails I send out with what I hope are of interest to you.

Cartographically yours

Gerald Stark

## FEATURE ARTICLE

Edgar Baculi and Claus Rinner

Ryerson University

# A Geographic Content Analysis of Municipal Open Data Catalogues across Canada

Open data initiatives by different levels of government across Canada are continuously expanding. The connection of open data to open government and public policy is most often documented in government reports, commentaries, and blog posts such as those listed in Lauriault's (2014) reading list and the posts on her <http://data-libre.ca/blog>. In the context of smart cities research, Roche (2014) positions open data as a requirement for transparency and collaborative governance, while Johnson and Sieber (2011) noted the need for open data policies in Canada to support the development of an "informational" Geoweb.

In his Master's thesis, Currie (2013) conducted a comprehensive analysis of 23 municipal open data initiatives across Canada. According to Erickson et al. (2013), recording the number and type of datasets "would be useful to have greater detail regarding the file formats in use, giving us deeper insight into the extent of machine-readable data publication" (p.19). For a cut-off date in November 2012, Currie (2013) identified open data with geographic contents and more specifically those that were available in a geospatial format. To qualify as "geographic", a dataset had to include geographic features such as addresses, coordinates, neighbourhood names, or postal codes. The geospatial data formats observed included the computer-aided design ("drawing") format DWG, the Keyhole Markup Language KML and its compressed form KMZ, and Esri's Shapefile format SHP.

Using the same methodology, we examined the open data catalogues of 11 municipalities participating in a SSHRC Partnership Grant on "How the Geospatial Web 2.0 is Reshaping Government-Citizen Interactions", also known as the "Geo-Think" project (<http://www.geothink.ca>). This short report focuses on the year-over-year development of the open data catalogues of the nine municipalities included in both, Currie's (2013) study and our research: Montreal, Ottawa, Cal-

gary, Edmonton, Toronto, Vancouver, Regina, Medicine Hat and the Region of Waterloo.

When compared between November 2012 and December 2013, the total number of datasets offered in these nine catalogues nearly doubled from 573 to 1085. Among these, datasets with geographic features grew from the 449 reported by Currie (2013) to 822. Finally, as illustrated in Figure 1, the datasets available in a geospatial format showed a slower growth from 283 to 405. The slower growth of these GIS-ready datasets could be due to the increasing tendency to make open data accessible to users regardless of software access and skill level. Instead of raw data, pre-defined maps are becoming increasingly available to illustrate the information contained in the datasets.

When examining the four cities with the largest totals and the greatest numbers of geographic datasets in December 2013, we found that 84% of Vancouver's 165, and 82% of Calgary's 99 geographic datasets were offered in a geospatial format. However, only 51% of Toronto's 91, and as little as 9% of Edmonton's 295 geographic datasets were GIS-ready

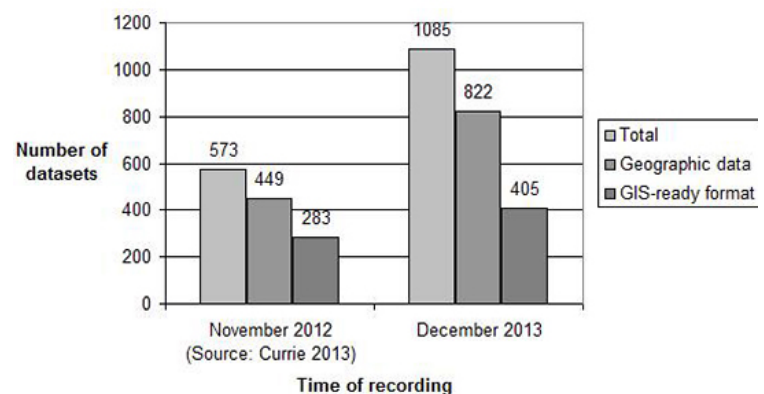
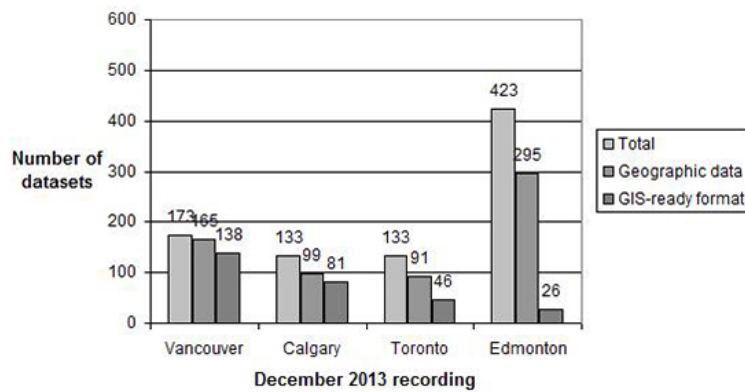


Figure 1: Summary of nine municipal open data catalogues.



**Figure 2:** Proportion of geographic and GIS-ready datasets for four largest providers.

(see Figure 2). The Socrata platform used by the City of Edmonton provides infographics and GIS-like functions, which could explain the low proportion of datasets provided in geo-spatial format.

It is important to note that we have not assessed the quality, usefulness, or completeness of municipal open data catalogues. For lack of access to Currie's (2013) raw data, we also cannot verify whether increases in the number of datasets are exclusively due to additions of data, or whether any datasets have been updated or removed since November 2012. Some large open data "providers" from Currie's study, such as Niagara Falls and the District of North Vancouver, were not included here. We are planning to continue reviewing the open data catalogues annually, expand our list of cities, add higher levels of government, and also follow Currie's example to examine the datasets by thematic categories.

About the authors:



Edgar Baculi is a second-year student in the BA in Geographic Analysis at the Department of Geography at Ryerson University. On an Ontario work-study position co-funded by the "GeoThink" SSHRC Partnership Grant, he started research on Canadian open data catalogues, which he presented at the Spatial Knowledge and Information Canada conference in February 2014. Edgar writes frequently for GoGeomatics Canada's online magazine, is an active tweeter of all things "Geo-", and engages in Ryerson's Student Association of Geographic Analysis (SAGA).



Dr. Claus Rinner is an associate professor and program director of the Master of Spatial Analysis (MSA) in the Department of Geography at Ryerson University. His research aims to improve geographic visualization, participatory mapping, and spatial decision support tools within geographic information systems. Applications of Claus' research span the spectrum of public health, social policy, regional planning, and environmental studies. Inspired by students like Edgar, Claus has recently embraced the social media and become an avid tweeter and occasional blogger.

Other potential research with co-investigators of the GeoThink project deals with the demand side of open data, data journalism, intellectual property issues around the geospatial Web (Judge and Scassa 2010), and the role of open data in volunteered geographic information systems (Rinner and Fast 2013).

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## FEATURE ARTICLE

Steven Reid, Carleton University

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## Carleton Researchers Receive Two of the Prestigious 2014 Killam Awards

Distinguished Carleton University researcher Fraser Taylor has received a coveted Killam Prize worth \$100,000, the Canada Council for the Arts announced Wednesday. The news means that Carleton has captured two of the 10 Killam Prizes and Fellowships awarded in Canada this year.

Taylor, a Distinguished Research Professor and Fellow of the Royal Society of Canada, introduced the new discipline of cybercartography to the world, with its capacity to illuminate socio-economic issues.

In March, the Council announced a Killam Fellowship for Carleton's Manuella Vincter, who will continue her work on the globally collaborative ATLAS physics experiment.

These national awards celebrate Canada's most distinguished researchers in the humanities, social sciences, natural sciences, health sciences and engineering.

"Carleton is a global centre for creative and collaborative research in both the sciences and social sciences," said Carleton President Roseann O'Reilly Runte. "The important work of these two scholars is absolutely essential." Their contributions change the way we think and work and make a truly worldwide impact."

Taylor has demonstrated the power of cybercartography, an enhanced form of multimedia mapping using geographic information management that deepens the understanding of socio-economic issues.

In Canada, and around the world, his cybercartographic atlases have delivered new perspectives and a way to comprehend complex issues such as trade and economic patterns, international development and the risk of homelessness.

"This is the first time the Killam Prize has been awarded to a cartographer and I am proud to see the discipline recognized for its important contributions," said Taylor. "I share this honour with my team and I look forward to continuing our research on cybercartography."

Taylor recently co-edited the book, *Developments in the Theory and Practice of Cybercartography: Applications and Indigenous Mapping* and he continues to apply his expertise with Inuit and First Nations communities in Canada. He is actively engaged in the new United Nations Initiative on Geospatial Information Management, which seeks to address key global challenges through more effective use of global geospatial information.

Vincter's research addresses both the fundamental interest in better understanding Standard Model processes and the Higgs mechanism at the Large Hadron Collider (LHC), as well as how this correlates with the potential of new physics discoveries beyond the expected. Her work will address fundamental questions about the origins of the universe. This fellowship enables a leading Canadian contribution to fundamental science, enhancing the visibility and reputation of Canadian physics on an international stage. "This fellowship enables me to fully dedicate my energy and time to research over the next two years," said Vincter, Canada Research Chair in Particle Physics. "As part of the ATLAS team, I will continue to strive to gain a better understanding of the Higgs boson, whose existence helps elucidate how all matter acquires mass."

Fellowships are awarded to full professors at Canadian universities and research institutes who have an outstanding reputation in their area of research. The fellowship provides \$70,000 a year for two years.

"The Canada Council joins all Canadians in paying tribute to this year's Killam Prize winners — individuals who have boldly and consistently pushed the boundaries of our understanding of the world," said Joseph L. Rotman, chair of the Canada Council. "Each has aspired to excellence in their chosen disciplines and to improving the lives of people around the globe through their research and scholarly pursuits."

*Carleton University is home to exceptional researchers having an impact in Canada and around the world. Learn more about our Killam winners and other top researchers at: [research.carleton.ca](http://research.carleton.ca).*

## FEATURE ARTICLE

Johanna Pfalz  
Eclipse GIS

# Current and Proposed Mining, Energy and Forestry Development in Northwest British Columbia

Northwest British Columbia is experiencing an unprecedented level of natural resource development. Currently proposed or under development are a staggering number of mining and energy projects including twelve liquid natural gas (LNG) pipelines, six LNG plants along the coast, the Enbridge bitumen/condensate pipelines, at least five significant mining projects, and several dozen independent power projects (IPP) as well as the corresponding infrastructure to support all of this development such as roads and transmission lines. These new developments are all in addition to the extensive forest harvesting activity that has taken place in the region since the 1980s.

The purpose of the Current and Proposed Mining, Energy, and Forestry Development in BC map is threefold:

A) The map is intended to spatially represent the linkages between the various projects. It is a tool to help the general public, Non-government organizations, and the provincial government understand what is being developed, where the developments are being situated, and how the various developments are spatially related.

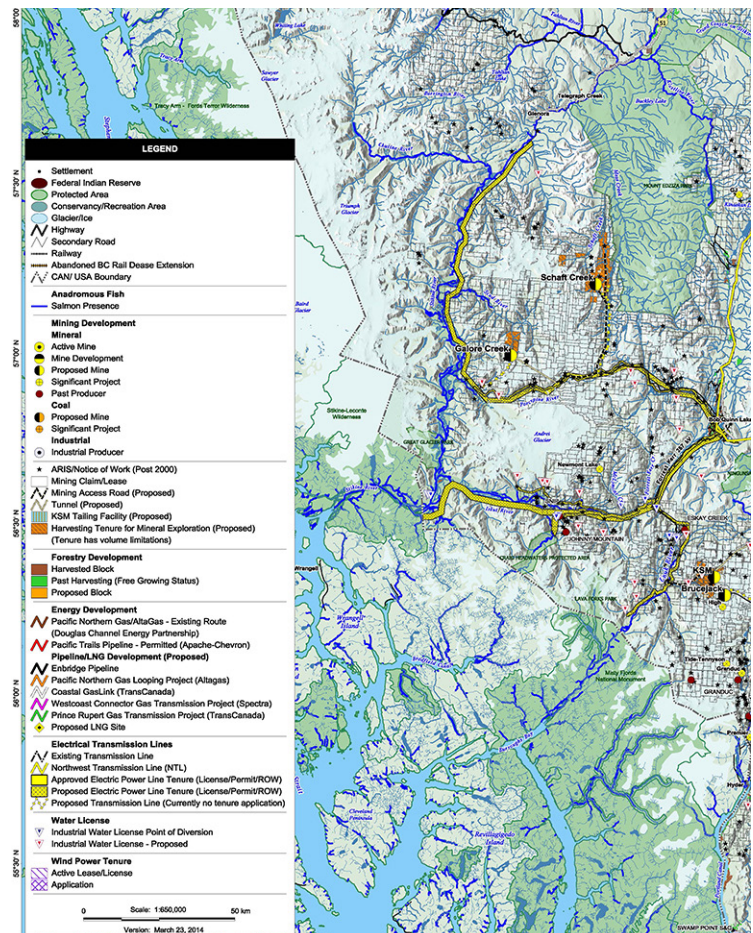
B) The map is also intended to highlight the concern that many of these proposed developments are situated on or near salmon bearing streams. To understand the full impact of these developments on salmon populations and habitat, the cumulative effects of the projects needs to be fully assessed.

C) The map is also intended to bring attention to the ad-hoc nature of the current tenure and approval process currently in place. It demonstrates the need for a well thought out, sustainable provincial energy strategy, particularly for Northwest BC, that takes into account the values of northwest BC residents.

The map project was a collaborative effort between SkeenaWild Conservation Trust, Skeena Watershed Conservation Coalition, Rivers Without Borders, Suskwa Research, and Eclipse GIS.

The map was created using Manifold GIS. Data was obtained from Geogratis and DataBC.

Below is a section of the map. A full copy of the map can be downloaded from <http://bvcentre.ca/>



## FEATURE ARTICLE

Gerry Perrier

Environment Yukon

# Horizontal Integration of Yukon's Geospatial Frameworks

*The Yukon is covered by three vector-based digital geospatial frameworks representing the landscape at 1:50,000, 1:250,000, and 1:1,000,000. Horizontal errors of up to several kilometres are not uncommon, making it difficult to share scale-independent features across frameworks, particularly cartographic shaded relief imagery and GPS data. In order to mitigate this issue, Environment Yukon developed methods to horizontally integrate each of Yukon's three geospatial frameworks using the 1:50,000 scale framework (Canvec) as the horizontal accuracy standard. Methods involved identifying correction links between frameworks using a variety of feature types. Using these correction links, and the spatial adjustment tools in ArcGIS, we were successful in removing much of the horizontal displacement from VMap0 and NTDB so that they align with Canvec, permitting the sharing of a variety of large scale datasets across all frameworks.*

## Introduction

Yukon is in an extensively mountainous territory located in northwestern Canada. The region is defined by its extensive mountain ranges, and the rivers and creeks that flow through their countless valleys. The mountain landscape is an inescapable part of Yukon life, and we live, play, and work between and upon our mountains—some of them among the tallest in North America. From a cartographic perspective, the shaded relief backdrop is an essential ingredient of virtually every Yukon map product. It is an indispensable cartographic element aiding map readers in locating themselves in the landscape.

Although Yukon cartographers have several sources of relief image available to them, all are derived from different topographic databases (geospatial framework), and as such, vary considerably in both resolution and horizontal accuracy. The most detailed and horizontally accurate Yukon elevation dataset is Natural Resources Canada's Canadian Digital Elevation Data (CDED), which was created as part of a national initiative by Environment Yukon's Geomatics Unit in 2007. Because of its superior accuracy and high quality rendering of Yukon's topography, shaded relief products at 30 metre and 90 metre resolutions were derived from CDED for use with

Yukon's three vector-based geospatial frameworks:

1. Small-scale: VMap0 – 1:1,000,000
2. Medium-scale: National Topographic Database – 1:250,000
3. Large-scale: Canvec – 1:50,000

The only one of these frameworks that aligns consistently with CDED-derived relief images is the large-scale Canvec—the original source of the elevation data upon which CDED is based. This means that when either of the smaller scale frameworks is superimposed on CDED-derived relief, their spatial inaccuracies become readily apparent: rivers and creeks run over mountains or up valley walls, and lake features appear upslope from their true position on the valley

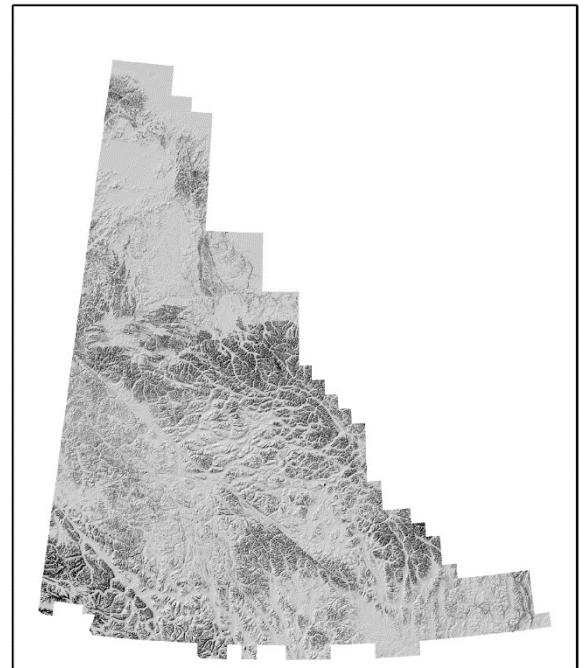
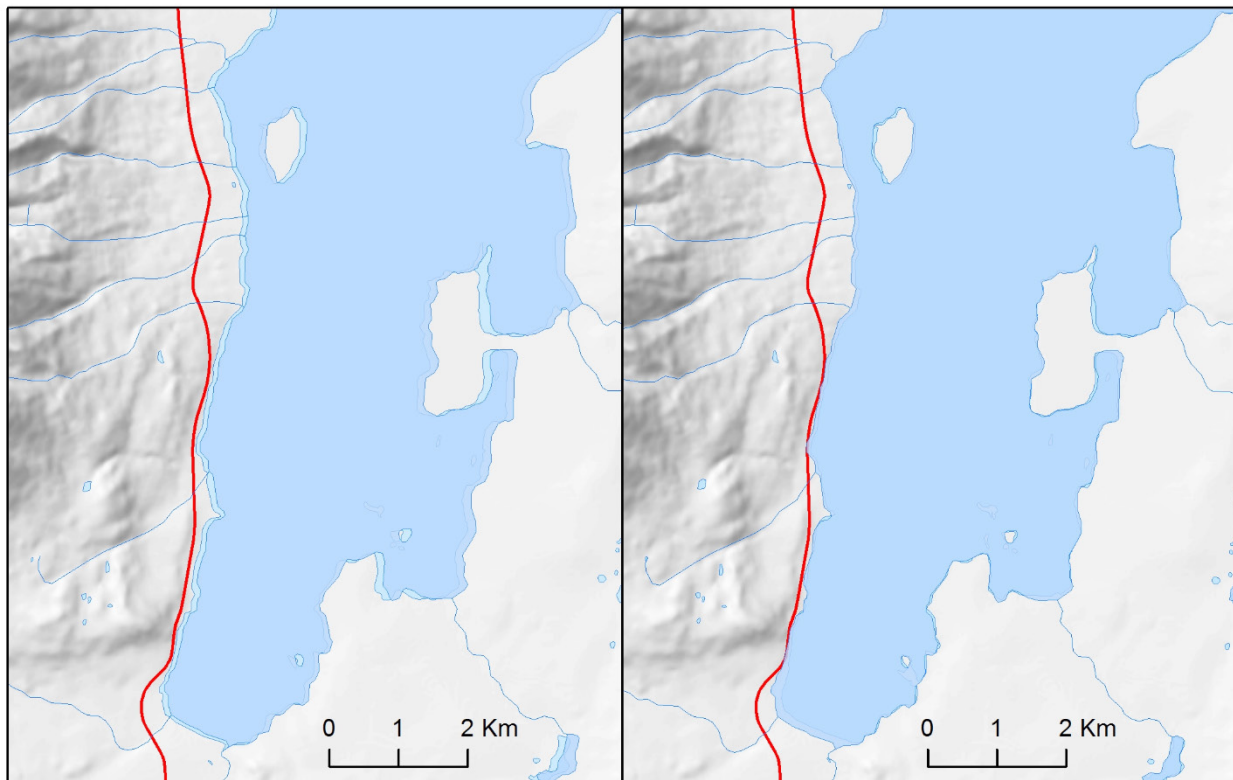


Figure 1: Canadian Digital Elevation Data (CDED) for Yukon.



**Figure 2:** 1:250,000 geospatial frameworks before (left) and after (right) spatial adjustment.

floor. The reason for these displacements is that each of these frameworks is based on a manually-compiled paper product, the creation of which pre-dates modern digital mapping techniques. As a result, inaccuracies introduced during their creation have been transferred to the digital products we now use for GIS. Of primary concern to GIS users are differences in horizontal accuracy between these three frameworks. Displacements of several kilometres are not uncommon, making it difficult to share scale-independent features across frameworks. Nowhere is this more apparent than when we superimpose inaccurate vectors on an accurate shaded relief.

In an era of highly accurate GPS data collection, this situation also creates difficulties for GIS users wishing to collect, analyze and communicate geospatial phenomena. In some instances, cartographers resort to moving accurate GPS features to match inaccurate topographic frameworks—all in the name of producing a visually “correct” map.

Driven by our frustrations with visual incompatibilities between smaller scale vector frameworks and high-resolution shaded relief, and our inability to share high accuracy data (notably GPS) across all our frameworks, we decided to investigate the possibility of adjusting our least accurate datas-

ets (1:1,000,000 and 1:250,000 scale) to match the accuracy of the 1:50,000 scale Canvec, our most accurate dataset. We would assess the success of our efforts by superimposing our adjusted data on our 30 metre CDED-derived shaded relief image.

## Our Approach

We elected to use ArcGIS Spatial Adjustment tools to perform the work. These tools provide an interactive environment which permits the user to identify common locations between the reference layer and the layer they wish to adjust (adjustment pairs). Spatial adjustment is well documented in the ArcGIS Help files so we won’t detail it here. In simple terms, the process involves adding a displacement link on a feature in the inaccurate data, then adding matching link at the location to which you wish the inaccurate data to move. This process is repeated throughout the dataset, ultimately building an ASCII “link table”, which forms the basis for the spatial adjustment.

Displacements between the inaccurate datasets and Canvec were not systematic, varying in both direction and magni-

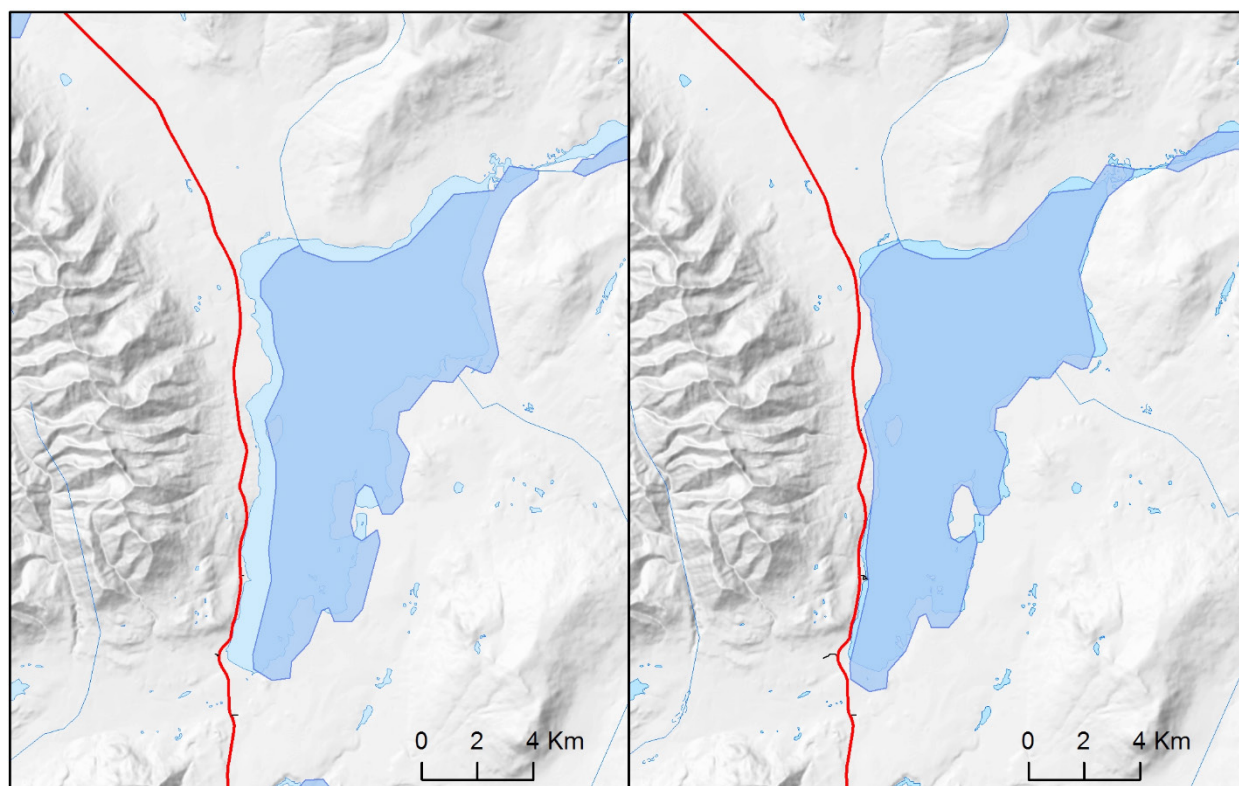


Figure 3: 1:1,000,000 geospatial frameworks before (left) and after (right) spatial adjustment.

tude. Because of this, we selected the rubbersheet transformation, which essentially stretches or warps the adjustment layer to match the target layer. The rubbersheet transformation offers two options: linear and natural neighbor. Natural neighbor was chosen as its displacement link requirements better matched our work (i.e. we did not have many links uniformly distributed across our dataset as required by the linear method).

## The Work

The most readily identifiable adjustment pairs were creek and river confluences (linear intersections). Rubbersheeting tests performed using only linear intersections yielded disappointing results. We concluded this was likely due to a combination of sampling bias (along the stream network) and photogrammetric interpretation errors introduced during source map creation. We then turned our focus away from linear intersections, and began experimenting with polygon features; specifically, lake centroids. It took little effort to determine we were onto something. Following this lead, we identified over 1000 lake centroid pairs, and the adjustment was run. The resultant shift was very encouraging, but because lakes are not evenly distributed throughout

Yukon, many mountain blocks separating the valley systems that contain our lakes required further adjustment. Without lake polygons to adjust these mountain blocks, we experimented with the centroids of closed contour loops as a surrogate for lakes. This yielded further improvements to our adjustment. We continued forward, experimenting with other features to fill in the remaining gaps. Using a step-wise iterative approach, we identified over 4500 adjustment pairs using a variety of feature types before we finally achieved the results we wanted.

In order to ensure adjustments were made to features along Yukon's border areas, adjustments were also applied to data in adjacent Alaska, Northwest Territories, and British Columbia.

Table 1: 1:1,000,000 to Canvec adjustment links.

Feature Type	Adjustment pairs
Lake centroids	4213
Contour loop centroids	450
Spot heights	262
Water confluences	252
Other	550
<b>Total</b>	<b>5727</b>

**Table 2:** 1:250,000 to Canvec Adjustment Links.

Lake centroids	1190
Contour loop centroids	1744
Spot heights	53
Water confluences	1269
Other	288
<b>Total</b>	<b>4544</b>

## Results & Conclusions

When the spatial adjustment process was complete, much of the horizontal displacement that was evident between Canvec and the smaller scale frameworks had been removed. The net result is that these frameworks now align much more closely with the CDED-derived shaded relief products we wished to integrate them with. In addition, GPS field data now displays much more accurately on these datasets than prior to the adjustments. Despite these dramatic improvements, problem areas still remain, particularly in the 1:1,000,000 framework. We attribute these errors in feature interpretation and/or drafting during the original map compilation process. To correct these would require manual intervention, which we are not prepared to do at this time.

In our experience, spatial adjustment using the ArcGIS spatial adjustment tools represents a viable approach to align-

ing horizontally disparate datasets across a large geographic area, provided:

1. Sufficient adjustment pairs are identified;
2. Adjustment pairs are well distributed across the entire dataset, extending beyond the area of interest;
3. Adjustment pairs include a variety of identifiable feature types with preference given to polygon features over vector intersections for initial adjustments.

Once our geospatial frameworks were adjusted, we were able to successfully apply the link data to the adjustment of thematic data that had been compiled against each framework. This included several Yukon-wide administrative boundary layers, and a variety of resource data layers. The net result is that our three data frameworks and thematic layers are now sufficiently aligned, that they integrate well with GPS data, and can share our highest quality shaded-relief imagery.

One unanticipated benefit of this project is that we are now able to leverage some large scale datasets for use with our small-scale frameworks. For instance, we are developing generalization methods to enable us to derive 1:1,000,000 and 1:250,000 scale road networks from the GPS-derived National Road Network and to generalize a 1:50,000 scale watershed layer for use with the same smaller scale frameworks. Both these initiatives would have been impossible prior to our alignment work.

## Winnipeg is how many smoots to Brandon?

As cartographers most of us use Google Earth® for research, assignments or just to view other parts of the world. One of the handiest tools available on Google Earth® is the ruler. With the ruler, one can measure the distance between any two places on the surface of the Earth using any unit of distance, from kilometers to miles to smoots. Smoots?

What is a smoot? A smoot is a non-standard unit of length devised as a prank by a group of MIT students in Boston. It was named for Oliver R. Smoot whose body (head to toe) was used to measure the length of the Harvard Bridge between Boston and Cambridge. A smoot is equal Oliver's height of 1.7 metres and the bridge's length was measured to be 364.4 smoots (620.1 m). Smoot graduated in 1962, became a lawyer and eventually chaired the American National Standards Institute and became president of the International Organization for Standardization (ISO). People

crossing the bridge today can see markings indicating the length of the bridge measured in smoots. In October 2008, the prank's 50th anniversary was commemorated with Smoot Celebration Day at MIT. In 2011 "smoot" was one of 10,000 words added to the fifth edition of the American Heritage Dictionary.

For trivia buffs, Oliver Smoot is the cousin of George Smoot, a Nobel Prize winning physicist. George Smoot made an appearance in "The Big Bang Theory" as the featured speaker at a physics symposium where Sheldon frantically tries to collaborate with him on his research paper (even allowing George top-billing!). George rejects the offer with line, "excuse me Dr. Cooper, but are you on crack?"

For the record, it is 119,278 smoots from Winnipeg to Brandon.

# Ecozone Spatial Framework for National Reporting

The Canadian Council on Ecological Areas is pleased to announce the release of the updated Ecozone Spatial Framework for National Reporting. Please see map below for reference.

The 2014 update is limited to the broadest level of ecological classification in Canada, the Ecozone. This new spatial framework replaces the 1995 ecological framework as well as the temporary Ecozone+ framework used for the Canadian Biodiversity: Ecosystem Status and Trends 2010 Report.

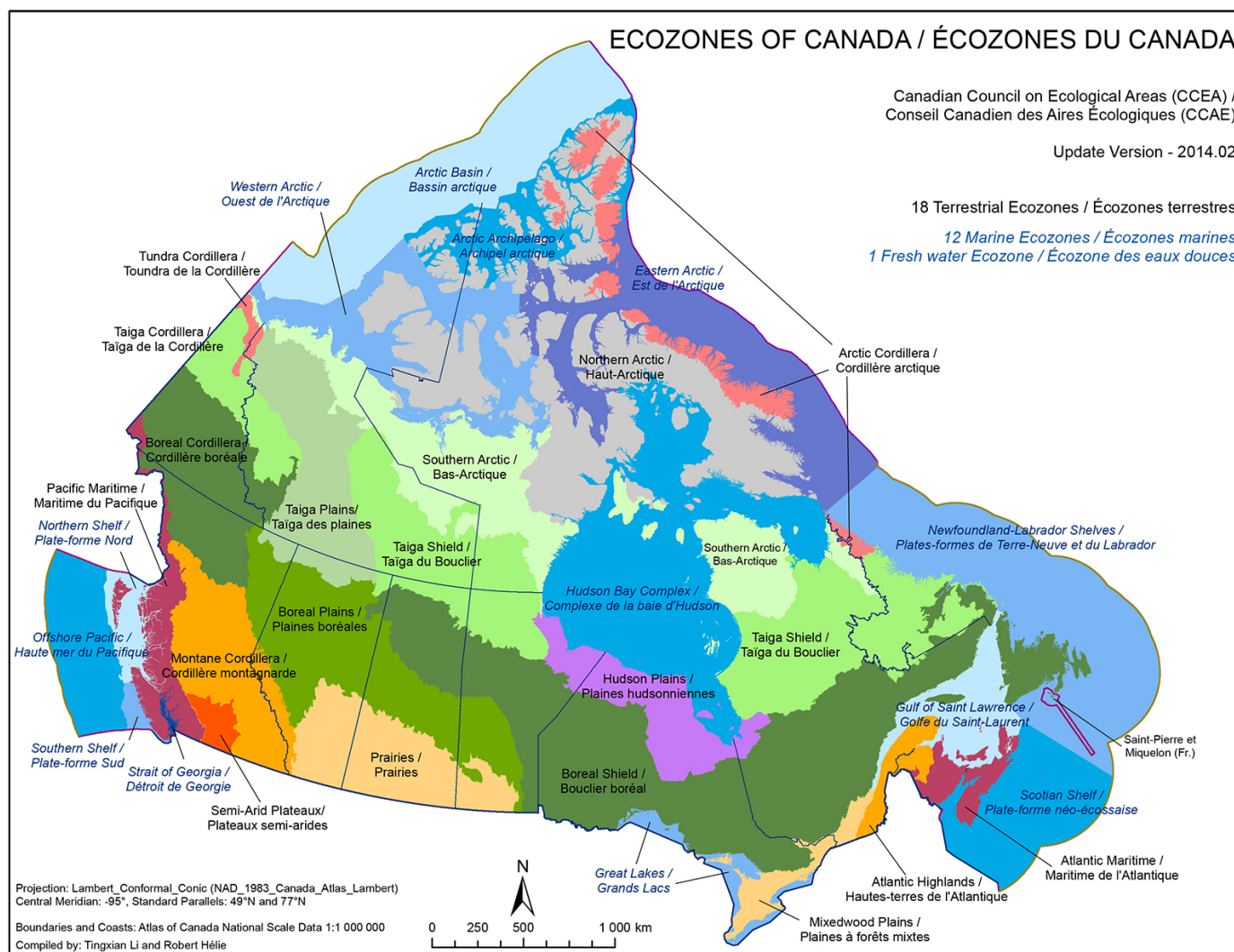
What's new? For the first time, both marine and terrestrial

Ecozones are on a single map. There are also three additional terrestrial Ecozones. This level of generalization is well suited for national scale analysis and reporting.

To learn more about the framework and to download the Google Earth files, GIS shape files, and PDFs of the new framework, please visit:

[http://ccea.org/en\\_ecozones.htm](http://ccea.org/en_ecozones.htm) (English)

[http://ccea.org/fr\\_ecozones.htm](http://ccea.org/fr_ecozones.htm) (French)



## CANADIAN CARTOGRAPHIC ASSOCIATION

### Financial Report 2013

The financial report for 2013 is laid out differently than in previous years. This was done to isolate the association general revenue and expenses from funds and disbursements designated for a specific use (i.e. the Norm Nicholson Scholarship Fund, the ICA Children's Map Competition Fund and the Cart-Quebec funds). This was done so that the financial health of the association could be more readily seen without being obscured by the ins and outs of these designated funds.

As a result you will immediately notice that we have operated with a significant deficit this year (\$4300). This is primarily because of the loss of the SSHRC grant that was used to offset conference traveling expenses. The government had ended this program in 2012 and its impact is visible.

Although the Association is still quite viable with about \$55,000 in assets, if we continue on this road of running deficits we are likely to be unable to sustain ourselves in the long term.

The next page of this report contains the Statement of Financial Position. This essentially lists the current assets that the association and the designated funds have at its disposal. The last two pages of the report itemize the revenues and expenditures of both the association and the designated funds.

Paul Heersink  
CCA Treasurer  
December 2013

**CANADIAN CARTOGRAPHIC ASSOCIATION**
**STATEMENT OF FINANCIAL POSITION**

30 November 2013

<b>Association Assets</b>	<b>2013</b>	<b>2012</b>
Term Deposit (4)	\$49,147	\$49,147
Cash	\$5,646	\$11,819
<b>Total Association Assets</b>	<b>\$54,793</b>	<b>\$60,966</b>

<b>Designated Assets</b>	<b>2013</b>	<b>2012</b>
Association Carto Quebec Fund (unrestricted asset)	\$7,644	\$8,144
Nicholson Scholarship Fund (term deposit)	\$8,657	\$9,157
ICA Children's Map Fund (unrestricted asset)	\$2,122	\$2,172
<b>Total</b>	<b>\$18,423</b>	<b>\$19,473</b>

**ON BEHALF OF THE ASSOCIATION**


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Paul Heersink, Treasurer

**CANADIAN CARTOGRAPHIC ASSOCIATION**  
**STATEMENT OF REVENUE AND EXPENDITURES**

NOVEMBER 30, 2013

Association Specific Revenue and Expenses<sup>1</sup>

<b>Association Revenue</b>	<b>2013</b>	<b>2012</b>
Membership fees	\$10,438	\$9,173
SSHRC grant <sup>2</sup>	\$----	\$3,322
Interest on bank account	\$2	\$3
Interest on term deposit <sup>3</sup>	\$----	\$874
<b>Total Association Revenue</b>	<b>\$10,440</b>	<b>\$13,372</b>

<b>Association Expenditures</b>	<b>2013</b>	<b>2012</b>
Cartographica	\$6,400	\$5,260
Cartouche	\$----	\$124
AGM Travel	\$5,887	\$5,808
Conference expenses (sponsorship, catering) <sup>4</sup>	\$1,084	\$360
Bank charges & credit card merchant fees	\$810	\$755
President's Prize	\$500	\$----
Gifts <sup>5</sup>	\$100	\$----
Telephone (including conference calls)	\$----	\$1,154
<b>Total Association Expenditures</b>	<b>\$14,781</b>	<b>\$13,461</b>

<b>Excess of Association specific revenue over expenditures</b>	<b>-\$4,341</b>	<b>\$89</b>
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**Notes:**

<sup>1</sup> Association specific revenues and expenditures are those revenues and expenditures dedicated to the running of the organization and are not designated to other funds.

<sup>2</sup> SSHRC grant program was suspended for all organizations at the end of 2012.

<sup>3</sup> The term deposit currently does not mature until 2014; hence no interest was collected in 2013.

<sup>4</sup> Conference expenses include an expense for the 2012 Edmonton conference for \$441.

<sup>5</sup> Gift was in memory of Alun Hughes, made out to Brock University Library's Special Collections fund.

**CANADIAN CARTOGRAPHIC ASSOCIATION**  
**STATEMENT OF REVENUE AND EXPENDITURES**

NOVEMBER 30, 2013

Other Designated Revenue and Expenses<sup>1</sup>

<b>Other Designated Revenue</b>		
Nicholson scholarship fund deposit interest <sup>2</sup>	\$-----	\$163
ICA Children's Map Competition Fund <sup>3</sup>	\$-----	\$2,172
<b>Total Other Designated Revenue</b>	<b>\$-----</b>	<b>\$2,355</b>

<b>Other Designated Expenditures</b>		
CartoQuebec award	\$500	\$-----
Norm Nicholson Scholarship	\$500	\$-----
ICA Children's Map Competition Prizes <sup>4</sup>	\$50	\$-----
<b>Total Other Designated Expenditures</b>	<b>\$1,050</b>	<b>\$-----</b>

**Notes:**

<sup>1</sup> Revenues and expenditures of designated funds, not part of the general operating revenue and expenses of the Association.

<sup>2</sup> The term deposit currently does not mature until 2014; hence no interest was collected in 2013.

<sup>3</sup> The University of Victoria provided us with \$2,355 for the ICA Children's Map Competition Fund. This is to be dispersed to winning children's map submissions to the ICA.

<sup>4</sup> Five prizes of \$50 each were awarded in 2013 but only 1 cheque was cashed during the reporting period.

**MOUNTAIN WORKSHOP RECAP****Roger Wheate****University of Northern British Columbia****9th ICA Mountain Cartography Workshop, Banff, April 22-26**

This biennial workshop was held in Canada for the first time and outside Europe for only the third time. We were blessed with classic spring weather - cool crisp mornings and nights around 0°C, and daily highs in brisk double figures. The group had complete use of the Mary Belle building at the HI-Banff Alpine Centre on the edge of Tunnel Mountain, with 30 people spreading out across the 65 bed facility. In addition the sessions were boosted by another 20 local participants. The first evening saw an icebreaker event as we were entertained by John Paczkowski, a local wildlife biologist showing footage from the many wildlife webcams and distribution maps. The next day (Wednesday) was the designated recreation day and the majority set out using the free local bus service to the Banff Springs Hotel, Cave and Basin (the geothermal reason the Park is here), the Whyte Museum and finishing off soaking at the Upper Hot Springs. The Whyte Museum included a superb special map exhibit showing maps by local enthusiast Bob Sandford; this is well worth a visit if you are in the area soon. We dined that evening at the spacious Wild Bill's due to a booking error at our first choice, but all ended well.

Thursday 24th was our first full session day; following introductions by Karel 'Charly' Kriz, the Mountain Cartography commission chair and Roger Wheate, the local organizer, we enjoyed morning sessions focusing on Parks and Recreation, and Shaded Relief. The former showcased recreational mapping in New Zealand, Canada and Argentina, while the latter examined recent software advances in texture and blended shading. After lunch saw a session on Mapping the Rockies and The Yukon, followed by a special live presentation from New Zealand on the recent GPS re-mapping of Aoraki/Mt. Cook. The last session of the day featured shorter 10-minute presentations on parks and visualization, showing map and panorama examples. We then prepared ourselves for a 2km walk along Tunnel Mountain Road to the Banff Centre led by their director, Jim Olver; here we saw some very impressive



3D visualization and the always inspiring introduction film clip to the Best of Banff Film festival (coming to your town sometime in 2014). The evening Mexican meal was downed at the Magpie and Stump.

Friday 25th involved morning sessions on terrain and thematic mapping, and relief depiction, covering the gamut of National Geographic mapping, snow avalanches, the Atlas of Yellowstone, Ski hill maps, hachures, hypsometric tints, rock depiction and geomorphometry. After lunch session on photography and LiDAR involved transmission line design, digital monoplottting and time lapse cameras for snowline plotting. The workshop sessions concluded with 10 minute presentations on 3D methods and mapping: true 3D animation, wall maps, flooding the St. Elias Range and ski area wayfinding. We then headed down to the town for the banquet at the Elk and Oarsman pub/restaurant, concluding the workshop proper. However 16 people added on the two day field trip to Jasper and back, along the Icefields Parkway ... one of the 101 things you should do before you die. The weather didn't cooperate the first day, but we had a splendid overnight stay at the Palisades Centre in Banff. The next day we scaled the grassy hill known as Old Fort Point in glorious sunshine and passed in close contact with five male and then five female Bighorn sheep. Thence the main group drove back to Banff in better weather that offered great views, while the organizing group continued on back to Prince George. I am much indebted to fellow CCA members Morgan Hite and Jeff Wielke for their assistance and to UNBC students / new CCA members Natalie Saindon and Adam Jacobsen for manning the registration desk, and more. The enthusiastic attendees included Johanna Pfalz (Smithers) and Gerry Perrier/Matt Wilkie (Whitehorse), who also contributed to this issue of Cartouche (see p.11-15).

For organizer and participants, this was a great meeting and experience; I intend to offer the same location and facility if the opportunity arises for the CCA annual meeting.



Lake Louise panorama, by Eckhard Zeidler



Group photo, Hi Banff Alpine Centre



Jim Olver (centre in green coat) instructing group in front of Tunnel Mountain



Field trip group (at Old Fort Point, Jasper)



The group assessing Banff map display: Leland Brown, Tom Patterson, Daniel Huffman, Natalie Saindon, Morgan Hite, Brooke Marston, Jeff Wielke, Tamil Selvan

## Web links:

- Workshop, including sessions: <http://gis.unbc.ca/banff2014>
- Whyte Museum map exhibit (till June 8): <http://www.whytorg/exhibitions/#cartography>
- Mapping Aoraki/Mt. Cook: [http://www.youtube.com/watch?v=wRvq9A5qwsY&feature=player\\_embedded#t=0](http://www.youtube.com/watch?v=wRvq9A5qwsY&feature=player_embedded#t=0)  
<http://www.livescience.com/42610-new-zealand-aoraki-mount-cook-shrinks.html>

## 2014 President's Prize Competition

The CCA President's Prize recognizes excellence in student map design and production and is open to all post-secondary students who have completed and produced a cartographic project in the preceding school year. The 2014 President's Prize Competition will consist of two prizes of \$200, one for entries from college-level or CEGEP students, and one for entries from university level undergraduate students in the following category:

A thematic map on any subject. A thematic map is a map that is meant to communicate a specific single subject matter within a particular geographic area. They are often defined as special purpose maps and can be either quantitative or qualitative in nature. The International Cartographic Association (ICA) defines the thematic map this way: "A map designed to demonstrate particular features or concepts. In conventional use this term excludes topographic maps" (Dent 1999, 8).

### Entry Guidelines:

The cartographic project will consist of a single map. There are no restrictions on size but the project must have been completed and produced during the school year preceding the competition. Each entry must be accompanied by a clear and succinct statement of design objectives that will weigh heavily in the judges' decision. All students enrolled at a Canadian university or college are eligible to submit their maps made in the 2013/14 academic year.

Entries will be judged on the basis of creativity and overall effectiveness in communication as well as excellence in compilation, design, and layout.

Entries for 2014 are invited from all Canadian post-secondary students. All entries should be accompanied by an official entry form found on page 25 or on the CCA website ([www.cca-acc.org](http://www.cca-acc.org)). Deadline for submissions is **May 20, 2014**. Mail submissions to:

CCA President's Prize Competition  
c/o Dr. Julia Siemer  
Assistant Professor of Geography  
Cartography and GIS  
University of Regina  
Department of Geography  
3737 Wascana Parkway  
Regina, Saskatchewan  
S4S 0A2

## Concours pour le Prix du Président 2014

Le Prix du Président de l'ACC reconnaît l'excellence dans la conception et la production cartographiques par des étudiants. Tous les étudiants du niveau postsecondaire qui ont terminé et produit un projet cartographique au cours de l'année scolaire précédente sont admissibles. Le concours pour le Prix du Président 2014 décernera deux prix de 200\$, un pour les soumissions de niveau collégial et un pour celles d'étudiants du premier cycle universitaire, dans la catégorie suivante:

Carte thématique de n'importe quel sujet. Une carte thématique, aussi appelée carte à sujet unique, est une carte qui met l'accent sur un thème spécifique ou unique dans une zone géographique particulière. Elles sont souvent définies comme des cartes à usage spécial et peuvent être soit quantitatives ou qualitatives. L'Association cartographique internationale (ACI) définit une carte thématique comme suit: «Une carte conçue pour démontrer des détails cartographiques ou concepts particuliers. Selon l'usage conventionnel ce terme exclut les cartes topographiques» (Dent 1999, 8).

### Critères d'inscription:

Les projets cartographiques consisteront d'une seule carte. Il n'y a pas de restriction quant à la taille de la carte mais il faut que le projet ait été terminé et produit au cours de l'année scolaire précédant le concours. Chaque soumission devra être accompagnée d'un énoncé court et clair sur les objectifs de la conception de la carte. Cet énoncé sera crucial pour la décision du jury. Tous les étudiants inscrits dans une université ou un collège canadien sont admissibles à présenter leurs cartes faites durant l'année scolaire 2013/14.

Les soumissions seront jugées selon la créativité et la façon dont le message est présenté ainsi que l'excellence de la préparation, la conception et la présentation du projet.

Le Président de l'ACC invite tous les étudiants canadiens de niveau postsecondaire à soumettre leur projet cartographique. Toutes les soumissions doivent être accompagnées d'un formulaire officiel de participation, disponible à la page 26 ou sur le site Web de l'ACC ([www.cca-acc.org](http://www.cca-acc.org)). La date limite de soumission est le **20 mai 2014**. Envoyer les soumissions à:

Prix du Président de l'ACC  
a/s Dr. Julia Siemer  
Assistant Professor of Geography  
Cartography and GIS  
University of Regina  
Department of Geography  
3737 Wascana Parkway  
Regina, Saskatchewan S4S 0A2

## 2014 Carto-Québec Prize

The CCA is pleased to announce the offering of the Carto-Québec Prize, a special annual competition for the best student-authored cartographic product created in French. The award has been established through a donation from the former Carto-Québec Association to promote and recognize excellence in map design.

The competition is open to all post-secondary students in Canada who have completed and produced a cartographic project in the preceding school year. The Carto-Québec Prize will consist of two awards of \$500, one for entries from college-level or CEGEP students, and one for entries from university-level undergraduate students.

### Entry Guidelines:

Cartographic projects will consist of a map or a map series forming a coherent whole and may be submitted in any finished form (on paper or other medium). Entries submitted in electronic media, whether GIS or internet mapping applications, should not require specialized software for viewing.

There are no restrictions on the size of the map project or subject but the project must have been completed and produced during the school year preceding the competition. All documents must be in French.

Entries will be judged on the basis of creativity and overall effectiveness in communication as well as excellence in compilation, design, and layout.

Entries for 2014 are invited from all Canadian post-secondary students. They should be accompanied by an official entry form found on page 25 or on the CCA website ([www.cca-acc.org](http://www.cca-acc.org)). Deadline for submissions is **May 20, 2014**. Mail submissions to:

Carto-Québec Prize Competition  
c/o Dr. Julia Siemer  
Assistant Professor of Geography  
Cartography and GIS  
University of Regina  
Department of Geography  
3737 Wascana Parkway  
Regina, Saskatchewan  
S4S 0A2

## Concours pour le Prix Carto-Québec 2014

L'ACC a le plaisir d'annoncer le Prix Carto-Québec. Ce concours annuel, ouvert aux étudiants postsecondaires à travers le Canada, sera décerné pour le meilleur produit cartographique créé en français.

Ce prix a été établi grâce à un don de l'ancienne Association Carto-Québec pour promouvoir et reconnaître l'excellence dans la conception des cartes. Le Prix Carto-Québec comprendra deux prix de 500\$, l'un pour les soumissions de niveau collégial et l'autre, pour le niveau du premier cycle universitaire.

### Critères d'inscription:

Les projets cartographiques comprendront une carte ou une série de cartes formant un ensemble cohérent et pourront être soumis en version imprimée ou autre. Les soumissions électroniques, qu'elles comportent des applications SIG ou de l'Internet, ne doivent pas nécessiter de logiciel spécialisé pour les visualiser. Il n'y a aucune restriction concernant la taille ou le sujet de la carte, mais le projet doit avoir été fait au cours de l'année scolaire précédant le concours. Le projet doit être produit en français.

Les soumissions seront jugées selon la créativité et la façon dont le message est présenté, ainsi que l'excellence de la préparation, la conception et la présentation du projet.

Le Président de l'ACC invite tous les étudiants canadiens de niveau postsecondaire à soumettre leur projet cartographique.

Toutes les soumissions doivent être accompagnées d'un formulaire officiel de participation, disponible à la page 26 ou sur le site Web de l'ACC ([www.cca-acc.org](http://www.cca-acc.org)). La date limite de soumission est le **20 mai 2014**. Envoyer les soumissions à:

Prix Carto-Québec  
a/s Dr. Julia Siemer  
Assistant Professor of Geography  
Cartography and GIS  
University of Regina  
Department of Geography  
3737 Wascana Parkway  
Regina, Saskatchewan  
S4S 0A2

# CCA Prizes Entry Form 2014

**Award:**

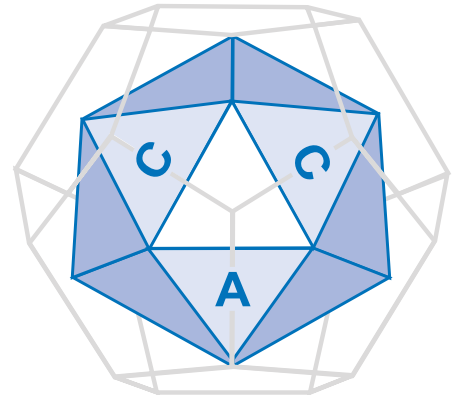
- ☐ President's Prize   ☐ Carto-Québec Prize

**Post-secondary category:**

- ☐ College or CEGEP Year or Level: 1 2 3 4 5  
☐ University

**President's Prize Category:**

- ☐ Thematic Map



Instructor's name and course name/number: \_\_\_\_\_

In a clear and concise manner, state your design objectives of your project and provide a rationale for your design choices:

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In order to be eligible, this form must be submitted with your entry. Deadline for submissions is **May 20, 2014**.  
Send entries to:

CCA President's Prize or Carto-Québec Prize  
c/o Julia Siemer  
Assistant Professor of Geography  
Cartography and GIS  
University of Regina  
Department of Geography  
3737 Wascana Parkway  
Regina, Saskatchewan  
S4S 0A2

# Formulaire de participation des Prix ACC 2014

## Prix:

- ☐ Prix du Président ☐ Prix Carto-Québec

## Catégories post-secondaires:

- ☐ Collège ou CEGEP année ou niveau 1 2 3 4 5  
☐ Université

## Catégorie Prix du Président:

- ☐ Carte thématique

Noms de l'instructeur et du cours numéro: \_\_\_\_\_

Dans un style clair et concis, indiquez vos objectifs de conception de votre projet et fournissez une justification de vos choix de conception:

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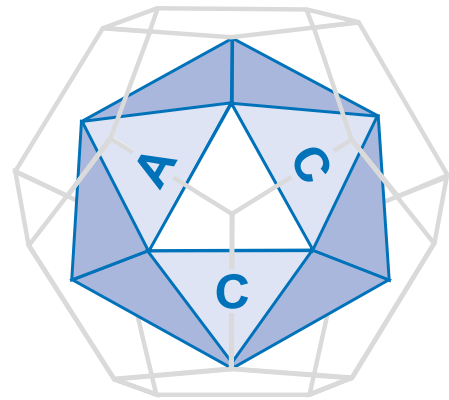
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Pour être admissible, ce formulaire doit être soumis avec votre inscription. *La date limite de soumission est le 20 mai 2014.*

Envoyer les soumissions à:  
ACC, Prix du Président ou Prix Carto-Québec  
a/s Julia Siemer  
Assistant Professor of Geography  
Cartography and GIS  
University of Regina  
Department of Geography  
3737 Wascana Parkway  
Regina, Saskatchewan  
S4S 0A2



## Norman Nicholson Scholarship

The purpose of the award is to recognize and encourage exceptional student achievement and ability in any aspect of cartography. The award consists of a certificate and a cheque for \$500.

### Eligibility:

The award shall be made to a student in good standing who is registered full-time in a recognized college or university program. The student must be a Canadian citizen or landed immigrant.

The student should have the following student status: entering the final year of a community college or CEGEP program in cartography, OR entering the final year of an undergraduate honours program with a concentration in cartography, OR a student accepted into or enrolled in a graduate program with a concentration in cartography.

Any student awarded this scholarship is not eligible in any subsequent year. The award is tenable only in the year in which it is granted.

### Application:

A student member who wishes to compete for the award will submit an application consisting of the following:

- An official transcript of all college or university courses completed and grades received.
- Letters of recommendation from two faculty members who are familiar with the student's work and capabilities. Letters of Recommendation are to be sent directly to the Awards Committee.
- A one-page statement from the student regarding plans for continuing education in cartography.

The application will be submitted to the Awards Committee of the Canadian Cartographic Association by March 15th of the year in which the award is to be granted.

Your application and all letters of recommendation should be sent to:

Elise Pietroniro  
Secretary, Canadian Cartographic Association  
708 Paul Metivier Drive,  
Nepean, Ontario  
K2J 2T4

For more detailed information concerning the Norman Nicholson Scholarship please read the following:

<http://www.cca-acc.org/norman-nicholson.asp>

## Bourse Norman L. Nicholson

*Le but de ce prix est de reconnaître et d'encourager les étudiants qui ont fourni un accomplissement et une compétence exceptionnels dans un aspect de la cartographie. Ce prix consiste en un certificat ainsi que d'une bourse d'études de 500\$.*

### Éligibilité:

*Ce prix sera remis à un étudiant en règle inscrit à temps plein dans un programme collégial ou universitaire reconnu. Cet étudiant devra être citoyen canadien ou résident permanent.*

*Cet étudiant devra être dans l'une des situations suivantes: entrer dans la dernière année d'un programme en cartographie d'un collège communautaire ou CEGEP, OU entrer dans la dernière année d'un programme universitaire de premier cycle spécialisé avec concentration en cartographie, OU un étudiant qui a été accepté ou qui est inscrit dans un programme d'études supérieures avec concentration en cartographie.*

*Tout étudiant qui recevra cette bourse d'études ne pourra être éligible pour une année ultérieure. Ce prix n'est valide que pour l'année de son attribution.*

### Poser sa candidature:

*Un étudiant membre de l'Association qui désire concourir pour cette bourse d'études doit soumettre sa candidature comprenant les éléments suivants:*

- *Un relevé de notes officiel de tous les cours collégiaux ou universitaires complétés dont les notes ont été reçues.*
- *Une lettre de recommandation de deux membres de la faculté qui sont familiers avec le travail et les capacités de l'étudiant. Les deux lettres de recommandations doivent être directement envoyées au Comité du Prix Norman L. Nicholson.*
- *Un document d'une page où l'étudiant exposera ses plans futurs concernant la poursuite de son éducation en cartographie.*

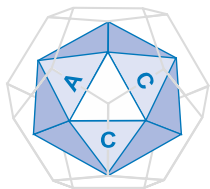
*La demande sera soumise au Comité du Prix Norman L. Nicholson de l'Association canadienne de cartographie au plus tard le 15 mars de l'année de l'attribution du prix.*

*Votre candidature, ainsi que les lettres de recommandation, doivent être envoyées à l'adresse suivante:*

Elise Pietroniro  
Secrétariat, Association canadienne de cartographie  
708 Paul Metivier Drive,  
Nepean, Ontario  
K2J 2T4

*Pour de plus amples informations concernant la bourse Norman L. Nicholson veuillez consulter la page :*  
[http://www.cca-acc.org/norman-nicholson\\_fr.asp](http://www.cca-acc.org/norman-nicholson_fr.asp)





# Newsletter of the / Bulletin de Canadian Cartographic Association / l'Association canadienne de cartographie

[www.cca-acc.org](http://www.cca-acc.org)

## CCA Executive / Exécutif de l'ACC

### President / Président

**Anna Jasiak**

Natural Resources Canada  
Atlas of Canada, 560 Rochester Street  
Ottawa ON K1S 4M2  
E-mail: [president@cca-acc.org](mailto:president@cca-acc.org)

### Vice President / Vice-président

**Dr. Christopher Storie**

Department of Geography  
University of Winnipeg  
Winnipeg MB R3B 2E9  
E-mail: [vicepresident@cca-acc.org](mailto:vicepresident@cca-acc.org)

### Past President / Président-sortante

**Gerald Stark**

Alberta Agric. and Rural Development  
#206, 7000 113 Street,  
Edmonton AB T6H 5T6  
E-mail: [pastpresident@cca-acc.org](mailto:pastpresident@cca-acc.org)

### Secretary / Secrétaire

**Elise Pietroniro**

30 Shaughnessy Crescent,  
Ottawa ON K2K 2P2  
E-mail: [secretary@cca-acc.org](mailto:secretary@cca-acc.org)

### Treasurer / Trésorier

**Paul Heersink**

39 Wakes Avenue  
Markham ON L3P 2C4  
E-mail: [treasurer@cca-acc.org](mailto:treasurer@cca-acc.org)

## Interest Group Chairs / Présidents des groupes d'intérêt

### Design and Geovisualization / Cartographie analytique et design

**Shawn Mueller**

Mount Royal University  
Calgary AB T3E 6K6  
E-mail: [smueller@mtroyal.ca](mailto:smueller@mtroyal.ca)

### Cartography 2.0 / Cartographie 2.0

**Cameron Wilson**

Natural Resources Canada  
Ottawa ON K1A 0E9  
E-mail: [Cameron.Wilson@NRCan-RNCan.gc.ca](mailto:Cameron.Wilson@NRCan-RNCan.gc.ca)

### Education / Éducation

**Julia Siemer**

Associate Professor of Geography,  
Cartography and GIS  
Department of Geography, University of Regina  
3737 Wascana Parkway  
Regina SK S4S 0A2  
E-mail: [Julia.Siemer@uregina.ca](mailto:Julia.Siemer@uregina.ca)

### Mapping Technologies and Spatial Data / Technologie cartographiques et données spatiales

**Tracey Lauriault**

National Institute for Regional and Spatial Analysis  
Maynooth, Ireland  
E-mail: [tlauriau@gmail.com](mailto:tlauriau@gmail.com)

### History of Cartography / Histoire de la cartographie

**Andreas Korsos**

Northwest Voyageur  
E-mail: [ankorsos@northwestvoyageur.com](mailto:ankorsos@northwestvoyageur.com)

## Appointees / Personnes nommées

### Cartographica (submissions / proposition d'articles)

**Monica Wachowicz and Emmanuel Stefanakis**

(co-editors)  
University of New Brunswick  
Department of Geodesy and Geomatics Engineering  
Fredericton NB, E3B 5A3  
Email: [monicaw@unb.ca](mailto:monicaw@unb.ca) / [estef@unb.ca](mailto:estef@unb.ca)

### CNC Chair / Président CNC

**Roger Wheate**

Faculty of Natural Resources  
University of Northern British Columbia  
Prince George BC V2N 4Z9  
E-mail: [wheate@unbc.ca](mailto:wheate@unbc.ca)

### CCA Representative on the CNC / Délégué de l'ACC au CNC

**Jeff Wielki**

840 18 Avenue NW  
Calgary AB T2M0V3  
E-mail: [jeffwielki@gmail.com](mailto:jeffwielki@gmail.com)

### Membership Coordinator / Coordonnateur des adhésions

**Fiona Ryle**

AbitibiBowater, Fort Frances Division  
145 Third St. W.  
Fort Frances ON P9A 3N2  
E-mail: [membershipcoord@cca-acc.org](mailto:membershipcoord@cca-acc.org)

### Cartouche Editorial Team /

### Équipe éditoriale de Cartouche

**Dr. Christopher Storie and Weldon Hiebert**

Department of Geography  
University of Winnipeg  
Winnipeg MB R3B 2E9  
E-mail: [cartouche@cca-acc.org](mailto:cartouche@cca-acc.org)

### Co-ordinator, National Map Exhibit /

### Coordonnateur de l'exposition cartographique nationale

**Janet Mersey**

Associate Professor  
University of Guelph  
Department of Geography  
Guelph ON N1G 2W1  
E-mail: [jmersey@uoguelph.ca](mailto:jmersey@uoguelph.ca)

### Barbara Petchenik International

### Children's Map Competition /

### Compétition internationale Barbara

### Petchenik de cartes dessinées par des enfants

**Karen VanKerkoerle**

Cartographic Section  
Geography Dept., SSC, Western  
London ON N6A 5C2  
E-mail: [kvanker@uwo.ca](mailto:kvanker@uwo.ca)

### Student Representative / Représentant des étudiants

TBA

E-mail: [studentrep@cca-acc.org](mailto:studentrep@cca-acc.org)

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