Annual Meeting of the Canadian Cartographic Association 2010

University of Regina, Saskatchewan, June 1-5 2010

The CCA convened for its 35th annual meeting, along with the Canadian Association of Geographers (CAG), Canadian Society for Remote Sensing, and the Canadian Geomorphology Research Group at the Prairie Summit conference in Regina. This was our second meeting in the province of Saskatchewan following a joint meeting with the CAG in Saskatoon in 2007, but the first time these four groups had met together, and it led to great synergies, which were greatly enhanced by integrated sessions across the groups. As an example, Derek Peddle (Lethbridge) - incidentally the first winner of the CCA Norman Nicholson scholarship – and commented that he was “inspired in the 1980s by Clifford Wood to transfer from computer science to cartography”, gave three presentations ranging across historical cartography, GIS and remote sensing: These covered “The early years of Captain James Cook and his role in 18th century cartography and history in Newfoundland”; “Sun glare road hazard mapping, Lethbridge Alberta”; and “Mountain Pine beetle structural change assessment from pre-outbreak (1999) and post-outbreak (2007) satellite imagery”.

Among the 100 paper sessions, several focused on aspects of mapping. The first on geographic/cartographic databases featured three presentations by Byron Moldofsky (University of Toronto) on the Canadian Century Research Infrastructure project using the 1911 census microdata for GIS analysis and mapping; Karen Richardson (Commission for Environmental Cooperation) on harmonized data for North America: a tool to track change; and Daniel Cole (Smithsonian Institute) on the deployment of the Ocean GeoPortal. Further information on these
projects can be found at these websites respectively: mercator.geog.utoronto.ca/ccri/ www.cec.org/naatlas and twitter.com/naatlas; oceanportal.org

Technology and cartography incorporated four papers: Glenn Brauen (Carleton) described a sound design kit for audiovisual web-mapping; Kirsten Trede (Zaandem, Netherlands) discussed advantages and disadvantages of presenting map content on small screens, Detlef Gunther-Diringer Cartographic cross-media examples of the department of geomatics, Hochschule Karlsruhe, Germany, and Colin Ferster (UBC) described his Ph.D research on public participation remote sensing.

In ‘the last 25 years of mapping’ session, Cliff Wood (MUN, retired) covered cartographic production methods and tools before the computer age, while Anna Jasiak and Donna Williams (Natural Resources Canada) summarized developments in mapping census data, and production changes from traditional scribing to web-based production in the Atlas of Canada 1985-2010.

Presentations on historical cartography included Ashley Young (Lakehead University) on Maps of the Nipigon: uncovering history through cognitive cartographics; Louise Buck (University of Western Ontario) - St. Marys river maps and historic GIS over four centuries and Ken Favrholdt on the historical geography of aboriginal land claims in the southern interior of BC.

In other sessions, Stephanie Pyne and Glenn Brauen documented the ongoing research work in the cybercartographic atlas of the Lake Huron Treaty, in creating new virtual and cultural spaces of history and through changing technologies. In applied GIS, Joe Fraser (COGS, Nova Scotia) outlined a Python tool for managing canvec data in ArcGIS.

» SEE ‘WHEATE’ PAGE 7

Editor’s Notes

This issue marks the sixth Cartouche that I have edited and desktop published, and is the final issue before I retire from this role. I retire from the executive with great calm, knowing that it is in the experienced leadership hands of Donna Williams and an energetic executive. It seems to me that we are at a most exciting cross-roads in our history and I see only good things ahead for the association. It IS what WE make it. It is US. The broad array of cartographic and GIS-related skills and backgrounds we have, our good will, experience, enjoyment of each other and hard work – all bundled up together – is our strength. These are surely the prerequisites for a strong association that will continue to thrive and to evolve to ensure it is relevant to the member’s needs and aspirations.

Thanks to those who sent thoughtful notes to me along the way.

Patricia Connor

Cartouche is published quarterly by the Canadian Cartographic Association. Members are welcome to submit articles for publication. Articles and notices submitted for publication are subject to editorial approval. Please address your submissions to the editor: All other articles will appear in the language of submission. While every effort is made to ensure accuracy of content, the editor cannot be responsible for errors in compilation, or loss of any item submitted. Opinions expressed in the editorials, submitted articles and letters are not necessarily those of the Canadian Cartographic Association. The Canadian Cartographic Association gratefully acknowledges the financial support given by the Social Sciences and Humanities Research Council of Canada.

OFFICE OF THE PRESIDENT

Reflections on the Prairie Summit 2010

Lately I have been reminded how things have changed during my career as a cartographer. It all seems to have happened so fast – Leroy lettering, burnishing, typesetting labels to default fonts and automatic placement of label procedures embedded in any one of the mapping software programs available today. The changes in cartography, not just map labeling, over the last 25 years have been amazing. And I have reached the stage in my career where looking back is not only allowed, but it is almost expected as is peering into the future, the future of cartography.

This yin/yang of reading cartography’s past and pondering its future from the present is challenging. The evolutions in cartography have been many during my career. Yet these advances have been a two edged sword of sorts. On one hand, computer based cartography and GISs, have brought cartography to the masses; almost anyone can produce, publish and disseminate a map today. And maps seem to be more popular than ever. On the other hand, however, many of the ‘maps’ produced suffer from the producer’s lack of understanding how to effectively communicate spatial information. At the same time the ability to produce maps almost instantaneously has created an insatiable appetite of sorts for spatial information in the real time of the map user or the potential map user. The challenges and implications for cartography and cartographers are many as society navigates along the information highway.

Some of these challenges and implications were discussed at the CCA special session “The Last 25 Years of Mapping: Helping Us Move Forward” that took place on June 3rd as part of our 2010 annual meeting. Our organization was one of four that came together as part of the Prairie Summit at the University of Regina. This session was very well attended with standing room only soon after the session began. In my mind, there were two great moments during this session. The first was when Cliff Wood presented his historical piece that set the tone (early history) for the last 25 years of mapping. His and the stories from this era, like the one shared by Gerald Stark after Cliff’s presentation must not be lost. Students in the room, I hope, will remember the stories and come to appreciate them more as they move toward becoming cartographers.

The second ‘moment’ lingered as many in attendance discussed the role of new technologies in cartography. As a group, we wondered about the role that cartographers play and will play in present day mapping and that of the future. We also wrestled with the ‘hows’ of continuing to contribute to the making of good maps – meaningful, communicative maps – in today’s instant society.

Through the next few Cartouche issues I will explore the role of cartography today and the impacts of new technologies. I will to travel down some of the paths we began to explore during the Prairie Summit 2010 session and raise some questions that we might want to address in Calgary 2011.

I would like to thank William Crumplin for all the help bringing this together.

Author Donna Williams is President of the Association. Donna is the Manager / Gestionnaire at the Atlas of Canada / Atlas du Canada, Mapping Information Branch / Direction de l’information cartographique, Natural Resources Canada/Ressources naturelles Canada, Government of Canada / Gouvernement du Canada.
Reviewing the Past and Looking Forward to the Future

Our annual CCA meeting, held in Regina (http://uregina.ca/prairies/) together with the Canadian Association of Geographers, Canadian Remote Sensing Society, and Canadian Geomorphology Research Group, was quite successful. Over 400 presentations were given and great interaction took place between members of the four sister disciplines. By the end of the conference, we had awarded six winners of five different competitions. In addition to the monetary awards highlighted in “The Student Zone” feature of Cartouche, all six winners also receive a one-year membership to the CCA including a subscription to Cartographica.

This past year has been a wonderful experience for me and I am thankful for the honor of serving as your president. I look forward to the work by our current president, Donna Williams, and the rest of the executive board during the coming year. In the interim, I would like to place a first call for nominations for Awards of Distinction, with more details to follow in the next issue of Cartouche.

Author Daniel G. Cole is Past President of the Association. He is the GIS Coordinator, Smithsonian Institution, Washington, DC.
Greetings Fellow CCA Members!

I wish to thank my fellow CCA members for their support in my past role as Chair of the Map Use and Design Interest Group. Although my tenure as an IG chair has come to an end, I will continue to serve the CCA as your new Vice-President.

As I embark upon my duties as VP, I would like to go on record here and personally thank Cliff and Alberta Wood, Roger Wheate, Dan Cole, Donna Williams and the rest of the CCA Executive Committee for their support and encouragement.

The past two years have been an exciting time for me as I have travelled from Vancouver to Nova Scotia and most recently to Regina, meeting with fellow cartographers. A common thread that has stood out in my discussions has been the high level of commitment to the art and science of making maps of CCA members.

I also want to take this opportunity to give my thoughts on our recent gathering at the Prairie Summit conference held at the University of Regina. I would have to say that the Regina gathering was a very successful one. The organizing committee at the University of Regina is to be commended for making the conference run smoothly which was no small feat considering there were over 400 paper/poster presentations from the four organizations taking part. I was particularly pleased that the working relationship between the CCA and the Canadian Association of Geographers (CAG) remains as strong as ever. I have always been of the opinion that cartography and geography go hand-in-hand as far as dealing with the study and presentation of geo-spatial research is concerned. This fact was evident in the attendance of CCA and CAG members at each others’ sessions. Such a partnership will bode well for future gatherings of our organizations. As far as CCA membership is concerned, it is clear that we have a strong core of enthusiasts in the CCA that make the future of the association look good.

I look forward to taking some time off this summer to relax and I trust you will be doing likewise.

Have a great summer!!!

Author Gerald Stark is the Vice President of the Association. Gerald is a cartographer at Alberta Agriculture and Rural Development in Edmonton, Alberta.
Mappers in Cells: Lessons from Historical Cartography

Cartographers can be unpopular. So unpopular in fact that they end up in jail. Every century since 1543 has seen the imprisonment of cartographers, either out of their love for maps, their desires to include particular cartographic details, or for wanting to innovate.

Although often accused of spying or promoting community maps, some cartographers landed in jail for financial reasons. Moses Pitt, in the 17th century, went bankrupt in trying to produce a 12-volume English atlas and ended up in debtor’s prison (Crouch, n.d.).

Gerardus Mercator (1512–1594) was no exception in the fretful history of cartography. Queen Maria of Hungary in the Habsburg Empire wanted a clean slate of religionists: a purge was in order. She ordered that Louvain (Belgium) be cleared of Lutherans and the names of globe-makers and map-makers began to appear on the “list,” including Franciscus Monachus, the first person in the Low Countries to create a globe (Crane, 2002: 135-141). Also accused of being a Lutheran, Mercator’s name appeared on that list. The procurer-general Pierre Dufief, showed up at Mercator’s home in early February 1543, only to realize that Mercator had left. The bailiff of the Pays de Waas declared Mercator a fugitive whom he later apprehended in Rupelmonde and took to the castle there. The castle was “vast, lightless, damp and very cold” (Crane, 2002: 136).

Mercator, someone decided, should be burned at the stake. However, the authorities were not able to produce anything incriminating against Mercator despite extensive searches at his home and through his correspondence. In September 1543, Mercator was freed from his 7-month confinement.

Still, others who had been arrested at the same time as Mercator were sentenced to death, including a woman who was buried alive, and left to die by suffocation. Others were either beheaded or burnt at the stake. The work of some cartographers casted doubt on their religious piety which was enough to warrant jail or execution. In addition to the fate the fell Monachus the globemaker mentioned earlier, the authorities accused Jacob van Liesvelt of printing an illustrated the Bible with a revolutionary map. He was beheaded (Crane 2002: 143). Reproducing the Bible beyond its conventional format proved to be surely an unhealthy exercise. When a man prepared the first concordance (index) of the Bible in the following year (1544) he was sentenced to be burnt at the stake (Bell, 2001: 18).

The religious orthodoxy in Louvain had other reasons to be more than a little upset with Mercator. He advocated the use of cursive lettering (rather than gothic script) on his maps, setting the advocates of gothic writing on edge for religious authorities regarded gothic script as the equivalent of a sacred script. The gentle Mercator (Crane, 2002: 113), however, tried to placate the religious orthodoxy by using philosophical and aesthetic arguments for
using cursive letters, rather than resorting to gothic script which seemed out of step with the “Latin alphabet.” We owe much to Mercator for being among the first to advocate the use of cursive Latin script in the Low Countries. Otherwise, we might have had to pen our missives in gothic today.

Sources:
"Wanted Poster:" http://www.google.ca/imgres?imgurl=http://upload.wikimedia.org/wikipedia/commons/f/f7/Mercator.jpg&imgrefurl=http://commons.wikimedia.org/wiki/File:Mercator.jpg&usg=__tWPqQPFZGkxYgrHOUtRLbp544=&h=746&w=540&sz=121&hl=en&start=19&um=1&itbs=1&tbm=isch&tbnid=YDosuL7uxns1FM:&tbnh=141&tbnw=102&prev=/images%3Fq%3DMercator%26um%3D1%26hl%3Den%26sa%3DN%26biw%3D685%26bih%3D121&tbm=isch

Note: I am dedicating this article to the many Baha’is who are held in jail throughout Iran

Author Will van den Hoornaard is the retiring Chair of this Interest Group, having served a two year term. He is a Professor Emeritus in the Department of Sociology, University of New Brunswick, Fredericton, NB.

» FROM INSIDE COVER » WHEATE

In addition to superbly well coordinated sessions, the program included social events for each day: icebreaker the first evening, followed by a student pub night at Bushwakker Brewpub, the CCA (open to all) Orienteering challenge and the conference banquet at the stately Hotel Saskatchewan. At lunchtime on the Friday, we were treated to an impressive demonstration by world champion hoop dancer, Terrence Little-tent at the spectacular First Nations University of Canada (adjacent to the University of Regina). Throughout the conference delegates could enjoy the landmark settings including the Was-cana Park, one of Canada’s largest urban parks, and the Albert Bridge, the world’s longest bridge over the shortest stretch of water.

The joint meeting format was so successful that it may be copied in future years. Many thanks and congratulations to the organizing team from the University of Regina, and to Julia Siemer and Joe Piwowar for the CCA / CSRS components. The conference webpage including the program and proceedings for most papers are available at: http://uregina.ca/prairies/

The 2011 CCA meeting will be held at the University of Calgary, in conjunction with the CAG May 31- June 4. This will also likely mark the 15th orienteering event at the same location as the first in 1995. In 2012 we will hold a joint conference with the Cartography and Geographic Information Society (CaGIS) in Ottawa.

Author Roger Wheate is a Professor and GIS Coordinator at the University of Northern British Columbia, Prince George, BC. Roger is the CCA Representative on the CNC.

Photo: Wascana Lake and the First Nations University of Canada, Regina
XXIV International Cartographic Conference
The World’s Geo-Spatial Solutions
November 15 – 21, 2009
Santiago, Chile

For the first time since its founding in 1959, the International Cartographic Association held its conference in South America. The 24th ICC took place in Santiago, Chile, hosted by the Military Geographic Institute (IGM) of Chile. The beautiful grounds and buildings of the Liberator Bernardo O’Higgins Military School provided a spacious venue which could easily accommodate all the conference functions and events. The Local Organizing Committee, chaired by Col. Juan Vidal Garcia-Huidobro, did an outstanding job managing this complex event. Especially appreciated was the large number of friendly young volunteers ready to assist you with any question or concern.

The Inauguration Ceremony included welcoming speeches from the Commander in Chief of the Chilean Army, General Oscar Izurrieta; Commander of the Chilean Air Force, General Ricardo Ortega, and President of the ICA, William Cartwright, among others. A highlight was the musical presentation by the Band of the Chilean Army. Approximately 730 full participants from 50 countries registered for the conference, with another 1160 individuals registering as visitors. In addition, over 300 personnel staffed the commercial exhibits.

Each day of technical papers began with a common plenary session delivered by experts in both the public and private mapping sectors. A special highlight for the Canadian delegation was the splendidly illustrated presentation by Helen Kerfoot, an Emeritus Scientist with NRCan. Currently serving as Chair of the United Nations Group of Experts on Geographical Names, Kerfoot is a leading scholar in the field of geographic toponymy who has been particularly concerned with the standardization of indigenous place names and the protection of cultural heritage. Kerfoot’s presentation entitled Geographical Names Maps, Identity and the United Nations, can be downloaded from http://www.icc2009.cl/news_031.html. Other plenary presenters included Vanessa Lawrence, Director of the Ordnance Survey in the UK; Robert Murrett, Director of the National Geospatial Intelligence Agency in the US; and Clint Brown, Director of Products at ESRI.

The impressive entrance to the Liberator Bernardo O’Higgins Military School in the Las Condes district of Santiago.

The courtyard in the centre of the Military School provided an ideal venue for the opening reception, while the long open-air corridor at the right housed the poster display.
Technical Program
The planned technical program included approximately 375 oral presentations and 90 poster presentations, organized into 30 themes. The most popular themes were Geospatial Analysis (43 papers), Atlas Cartography (32 papers), Spatial Data Infrastructures (28 papers), and Geovisualization (23 papers). Among the presenters from Canada were Yvan Désy (NRCan), Jonathan Li (Univ. of Waterloo), D.R. Fraser Taylor (Carleton Univ.), Eric Kramers (NRCan), Janet Mersey (Univ. of Guelph), Hansgeog Schlichtmann (Univ. of Regina), Jacqueline Anderson (Concordia Univ.), Douglas Hagedorn (Univ. of Calgary), Daniel Jacobson (Univ. of Calgary), Sébastien Caquard (Concordia Univ.), Songnian Li (Ryerson Univ.), and Nicholas Chrisman (Université Laval). The proceedings of the conference were provided on CD.

About 100 people attended a special screening of the film *A Century of Envisioning Dynamic Maps in Movies*, edited by Sébastien Caquard (Concordia University). The innovative film showcased scenes from a variety of shows which featured map in various contexts – remember the burning map at the opening of Bonanza?

The conference’s Technical Exhibition ran throughout the week, showcasing maps, cartographic software, and equipment from commercial vendors and government agencies.

Meetings of National Committee Delegates
Although the General Assembly did not convene during the ICC, two delegate meetings were held. The first discussed the research strategy and agenda of the ICA with the executive outlining their vision of how the ICA might develop over the years ahead. The Research Agenda document has been posted on the ICA webpage. The second meeting, held near the close of the conference, gave the delegates a chance to provide feedback on the organization of the ICC and to identify any recommendations for improvements to the next meeting.

The International National Map Exhibit
Featuring exceptional maps, globes and atlases from thirty-three countries, the International Map Exhibit occupied a central corridor of the main venue. The Canadian exhibit consisted of 14 paper maps and 3 atlases, including a digital atlas. I wish to acknowledge and sincerely thank Dan Duda (Memorial University), for assembling and documenting the Canadian exhibit, and arranging for its transport to Santiago. If you missed the conference, the Canadian collection will be on display at the Annual Meeting of the Canadian Cartographic Association, to be held from June 1 – 5, in Regina, Saskatchewan.
We had two winners! Congratulations to the cartographers at NRCan for their striking circular map of the circumpolar region entitled International Polar Year. The map was awarded first place in the Thematic Map Category. In the Maps based on Satellite Imagery category, a map from the North American Environmental Atlas, Land Use 2005, was awarded second place. The map is the result of a multinational mapping partnership among Canada, Mexico and the United States.

The Barbara Petchenik Children’s World Map Competition

School children from twenty-seven countries around the world participated in the World Map Competition, submitting 160 maps with the theme Living in a Globalized World. All the entries can be viewed at http://lazarus.elte.hu/ccc/bpc/bpc2009r.pdf, where the winners are also identified. Thanks go to Karen Van Kerkœrle (University of Western Ontario) for organizing the Canadian children’s map competition, which resulted in the selection of three maps that were sent to Santiago. Jacqueline Anderson (Concordia University), past Chair of the Commission on Cartography and Children and served as a member of the international jury for the competition.

Future ICA Conferences and General Assemblies

2011: The 25th International Cartographic Conference is slated for Paris, France, from July 3rd – 8th, 2011. The theme of the conference is Enlightened View on Cartography and GIS. The initial call for papers, along with preliminary conference information, is available on the website www.icc2011.fr. Note that the deadline for the submission of papers is Oct. 4th, 2010.

The conference will be preceded by the 15th General Assembly of the ICA where national members have the opportunity to discuss and vote on issues pertinent to the mission of the ICA, including the selection of the executive and commission chairs. New commissions and working groups can also be approved. Comments are particularly welcome on the ICA’s Research Agenda document, available at http://icaci.org/research-agenda/introduction.

At the General Assembly, all member nations will submit their Five Year National Reports on Cartography. In Canada this is published as a special issue of Geomatica, which will be submitted to the ICA in digital format. You will soon be receiving the Call for Papers for this issue, and I encourage geomatic specialists in both the private, academic and public sectors to consider submitting their work. Reports, as well as referred papers, will be included.

2013: Dresden, Germany, will host the 26th ICA conference.

2015: At the Paris meeting, a decision will be made on the 2015 venue, with the US planning a bid to host the conference in Washington, DC.
Executive Positions Currently held by Canadians on ICA Commissions and Working Groups:

Commission on Maps and Graphics for Blind and Partially Sighted People
   Chair: Dan Jacobson (University of Calgary)
Commission on Mapping from Satellite Imagery
   Vice-Chair: Jonathan Li, (University of Waterloo)
Commission on Theoretical Cartography
   Vice-Chair: Yaïves Ferland (Defence R&D Canada)
Commission on Use and User Issues
   Vice-Chair: Eric Kramers (NRCan)
Working Group on Art and Cartography
   Co-Chair: Sébastien Caquard (Concordia University)

Executive Membership of the International Cartographic Association:

President
   1. William Cartwright, RMIT University, Australia
Secretary General and Treasurer
   2. David Fairbairn, Newcastle University, UK
Vice-Presidents
   3. Derek Clarke, Surveys and Mapping, South Africa
   4. Georg Gartner, Technische Universität, Austria
   5. Pablo Gran, Instituto Geografico Militar, Chile
   6. Menno-Jan Kraak, ITC, Netherlands
   7. Zhilin Li, Hong Kong Polytechnic University, China
   8. Anne Ruas, Institut Géographique National, France
   9. Timothy Trainor, US Census Bureau, USA.
Past-President
   10. Milan Konecny, Masarykova Univerzita, Czech Republic
Editor ICA News
   11. Igor Drecki, University of Auckland, New Zealand

Author Janet Mersey is an Associate Professor and Associate Chair in the Geography Department, University of Guelph. She is Chair of the Canadian National Committee (CNC) on Cartography to the ICA and the CIG Technical Councilor for Cartography.
CALL FOR PAPERS

For the June 2011 Special Issue of *Geomatica*
Focusing on

CARTOGRAPHY IN CANADA 2007-2011

Deadline: October 15, 2010

This special issue of *Geomatica* will highlight recent developments and achievements in Canadian cartography. Researchers or practitioners in geomatics are invited to contribute to this issue by submitting a paper related to any aspect of the mapping sciences. Topics may include, but are not limited to, those listed below. This special cartographic issue of *Geomatica* will be included as part of the Canadian National Report on Cartography to be submitted at the 2010 International Cartographic Conference in Paris (www.icc2011.fr).

- Semiotics, Map Perception, Cognition and Knowledge
- Color, Signs and Typography on Paper and Digital Maps
- GeoVisualization, Augmented and Virtual Reality
- Maps and the Internet
- Art, Culture and Cartography
- SDI, Standards, Ontologies, Integration
- Data Quality and Uncertainty
- Location Based Services and Ubiquitous Cartography
- Volunteered Geographic Information, Crowdsourcing and Critical Cartography
- Geoinformation Retrieval
- Generalization and Multi-Scale Representation
- Spatio-Temporal Modelling and Issues (3D, Simulation)
- Use and User Issues
- Mapping and Spatial Awareness for Disabled People
- Geospatial Analysis
- GIS and Sustainable Development
- Maps, GIS and Society
- Maps, GIS and Hazards / Disasters
- Maps, GIS and Security
- Mapping from Satellite Imagery
- Map and GeoDB Production Techniques
- Open Source Technology and Web Services
- Intellectual Property Rights and Economic Issues
- Marketing and Publishing
- History of Cartography and GI Science
- National and Regional Atlases
- Mountain Cartography and DEMs
- Planet and Space Cartography
- Military Mapping
- Census and other Thematic Maps
- Toponyms on Maps and on GeoDB
- Map Projections, GPS and Geodesy
- Cartographic Education and Training
- Cartography and Children
- The Profession of Cartographer
- Medical and Health Services Mapping
- Advertising and Tourist Mapping
- Gender and Cartography
- Hydrographic and Marine Cartography
- Participatory and Community Mapping
- Indigenous Mapping
- Cybercartography
- GIS and Crime Mapping
- Mobile Mapping and Navigation Systems
- Mapping Urban Spaces
- Aeronautical Cartography
- Recreational Mapping and Orienteering
- Arctic and Sea Ice Mapping

Up to six papers will be selected for this special cartography issue. Manuscripts should be prepared according to the Instructions to Authors of *Geomatica* (www.cig-acgs.ca). Papers will be selected and reviewed based upon their suitability for this special issue and with reference to the current Reviewer’s Guide for *Geomatica*. An early notice of intent to submit would be appreciated. Please submit papers to:

Dr. Janet E. Mersey, Guest Editor
Department of Geography,
University of Guelph
Guelph, Ontario, Canada N1G 2W1

Tel: 519-824-4120 (ext. 53528); Fax: 519-837-2940; Email: jmersey@uoguelph.ca
STUDENT REPRESENTATIVE

Guest Column by: Victoria Tasker* and Marilyne Jollineau

*Victoria Tasker is the winner of “Best Student Paper” at the recent CCA/ACC 2010 meeting held in Regina, Saskatchewan.

A Geomatics Perspective on Vineyard Management in the Niagara Region

As geographers, we understand the importance of geospatial information. The geographical dimension of information, extracted using geomatics technologies and displayed using cartographic techniques, allows us to view the world in a unique and detailed way. Today, viticulturalists are increasingly focused on developing improved methods of vineyard management in order to grow better grapes to produce higher quality wines. Specifically, a need exists for improved methods of managing grape vines and their condition. The ability to measure, monitor and assess vines and their condition over time, and account for spatial variability in both vine quality and yield, allows vineyard managers to quickly respond to changes as they emerge.

This research project is part of a larger multi-disciplinary study investigating the value and use of geomatics technologies for improved vineyard management in the Niagara region of Ontario. Geomatics technologies include global positioning systems (GPS), geographic information systems (GIS), remote sensing (RS) and spatial analysis. The application of this technology to viticulture in the Niagara Region is especially important. Many Old World wine regions have had hundreds of years to develop suitable management strategies for their vineyards. Niagara, with its unique microclimate and rich diversity of glacial soils, is a relatively new producer of premium wines so vineyard managers are still developing the best strategies suited to their particular vineyards. Thus, geomatics technologies can provide essential geospatial information about newly developed vineyards in order to improve management decisions and subsequent wine quality.

Many vineyard management practices treat fields as though they are of uniform quality when, in actuality, they are varied and complex. Spatial variability exists in the vine vigour, climate, soil, topography and water status. Better vineyard management decisions can be made if these underlying spatial variations are understood and manipulated to the advantage of the grape grower. Although many wineries already recognize blocks that consistently produce higher quality grapes, the more recent introduction of geomatics technologies has enabled greater detail and accuracy in geospatial information to improve management decisions. Geomatics-related viticultural applications exist on multiple scales, from regional identification and vineyard selection to initial vineyard set up and within vineyard management. In the context of this study, we are quantifying and mapping within-vineyard variability in order to improve within-vineyard management decisions.

Stratus, a fifty-five acre vineyard in Niagara-on-the-Lake, Ontario, was selected for further study. This vineyard represents an ideal study site given that the vineyard decision-makers recognize the potential of geospatial information to improve vineyard management. However, they lack the resources required to integrate such a complex system into their existing management system. Thus, an academic and industry partnership was established in order to integrate geomatics technologies into Stratus’ management system.

Part of the integration process is to determine what relevant vineyard information can be extracted using geomatics techniques. In-situ data for the 2008 and 2009 growing season were collected; including GPS coordinates of vineyard blocks and air- and space-borne remotely-sensed imagery. In addition, growing season information from approximately 320 sample vines was collected using soil moisture surveys, leaf pressure bomb measurements and thermal microclimate data. Berry samples from the 320 sample vines were collected during the 2008...
and 2009 harvest and analyzed according to six indicators for winegrape quality: brix (sugar), weight, colour (for red varieties only), pH, titratable acidity and contaminants. The data were integrated into a GIS environment and analyzed to determine the spatial variability within the vineyard. The results indicate significant spatial variability within the vineyard and that variability is stable over time.

What is the most effective way to communicate geomatics derived information to a vineyard manager or a winemaker; essentially, to non-geographers without any experience with geomatics tools and techniques? Maps, of course! Although this article does not permit a detailed synopsis of the integration of geomatics technologies in viticulture, the benefits of it can easily be demonstrated. When we first started working with the winemaker, he thought his vineyard was flat (Figure 1); by simply looking at a digital elevation model in Figure 2, a 7-metre vineyard elevation range was revealed. More advanced spatial information can reveal even more unique within-vineyard characteristics that were previously undetectable. For example, recent literature suggests that slight water stress can produce higher quality grapes for wine production. However, raw soil moisture values do not give a clear synopsis of the moisture distribution in the vineyard. As illustrated in Figure 3, mapped soil moisture values provide an easy-to-interpret snapshot that can improve targeted management and selective harvesting decisions. Further illustrated in Figure 3, the two blocks of the same variety – Cabernet Franc 1 and 2 (CF1 and CF2) – have drastically different moisture levels. Although CF1 and CF2 are the same grape variety in the same vineyard, this geospatial information indicates substantial block differences that can lead to independent harvesting and processing. This map gives vineyard managers and winemakers powerful information to assist in winemaking decisions. Geospatial information contributes to a more controlled environment and essentially, better wines!

Looking toward the future, we have been successful in understanding the spatial variability of this vineyard. We will continue working closely with our partners and wineries to facilitate and promote integration of geomatics in wine...
production. The benefits of using geomatics technologies in viticulture extend beyond the boundaries of vineyards. Integrating geomatics technologies into existing vineyard management practices has the potential to significantly increase vineyard productivity, production efficiency and profitability over the long term while minimizing the impact of farm operations on the natural environment. Geomatics technologies is an important tool in promoting environmental sustainability while ensuring profitability of the grape and wine industry in the Niagara Region of Canada. Now, you will just have to come to Niagara to decide how great the wines really are!

We would like acknowledge the Ontario Centres of Excellence and Stratus Wines for generously funding and supporting this research study.

Bibliography


THANK YOU 2010 CONFERENCE ORGANIZING COMMITTEE!

CCA / ACC  Julia Siemer
CRSS / SCT  Joe Piwowar
CAG / ACG  Randy Widdis and Bernard Thraves
CGRG / GCRG  Kyle Hodder
Administration / secrétaire  Gina Holm

Authors: Victoria Tasker (pictured here) is a Masters student and Marilyne Jollineau is an Associate Professor in the Geography Department at Brock University.
Student Zone

Mapping Prizes and Awards, and the Best Student Paper Competition

PRESIDENT'S PRIZE (College): Barbara Pietersma
Student in Cartography: Digital Mapping, Centre of Geographical Sciences, Nova Scotia, Canada.
Map Title: Nova Scotia Dykelands: A History – 1630 to 2009
Prize: $200

PRESIDENT'S PRIZE (University): Sarah Lepp
Student in Physical Geography and Great Books Liberal Studies, Brock University, Ontario, Canada.
Map Title: Internet Tug of War: User Access vs. Government Control
Prize: $200

CARTOQUEBEC PRIZE: Pamela Soto Abasolo
Student in Géographie environnementale, Université de Montréal, Québec Canada.
Map Title: Trafic de marchandises dans l’Arctique canadien en 2006
Prize: $500
BEST STUDENT PAPER: Victoria Tasker
Masters Student, Department of Geography Brock University, St. Catharines, Ontario, Canada.
Victoria’s paper (provided elsewhere in this issue) was titled: “A Geomatics Perspective on Vineyard Management in the Niagara Region.”
Prize: $100.00.

NATIONAL STUDENT AWARD FOR ON-LINE MAPPING – BEST ANIMATED MAP: Joe Fraser
Student in Cartography: Digital Mapping, Centre of Geographic Sciences, Nova Scotia, Canada.
Map Title: Torngat Mountain National Park Fly-Through
Prize: $700
Online at: http://www.mediafire.com/file/djrtw2m3jwm/TorngatMountainsFlythrough.zip

NATIONAL STUDENT AWARD FOR ON-LINE MAPPING – BEST INTERACTIVE MAP: Nicole Benishek
Student in Geographic Information Systems and Cartography Specialization, Fleming College, Ontario, Canada.
Map Title: Kawartha Highlands Signature Site Provincial Park Canoe Routes
Prize: $900
Online at: http://highway61.flemingc.on.ca/~nbenishe/KawarthaHighlands_Benishek.html

Editor’s Note: Thanks to Dan Cole, Julia Siemer and Alberta Wood for providing the content for this section.

Welcome New Members (Regular and Student)

<table>
<thead>
<tr>
<th>Joseph McCollum</th>
<th>Steve Perry</th>
<th>Nicole Benishek</th>
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<tr>
<td>Shawn J. Mueller</td>
<td>Gail Murray</td>
<td>Joe Fraser</td>
</tr>
<tr>
<td>Stephanie Pyne</td>
<td>Sarah Lepp</td>
<td>Victoria Tasker</td>
</tr>
<tr>
<td>Lisa Vaughan</td>
<td>Pamela Soto Abasolo</td>
<td>Nigel Waters</td>
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</tbody>
</table>
THE ASSOCIATION MATTERS

Award of Distinction for Exceptional Contributions to the Canadian Cartographic Association

Citation by Donna Williams, Vice-President

A long time member of the CCA, Diane Lacasse, has won the Award of Distinction for Exceptional Contributions to the Canadian Cartographic Association. The reasons for this nomination are many. Firstly is Diane’s considerable and passionate effort in the translation of official CCA documents for the web, materials for Cartouche, and items used in the dissemination of information by other means. It is very important that CCA as a national organization present its materials in both official languages. She has done this work with dispatch and very accurately. Getting the correct French semantics of something in English is quite a skill, and she has given CCA it with vigor. Secondly is her contribution as Editor with Claire Gosson of four issues of Cartouche from issue 57 in Spring 2006 through issue 60 for Winter 2005. Also important is her service as Secretary of CCA until illness forced her to step down. Next is her work as Chair of the Map Use and Design Special Interest Group during which time she organized at least one special session. Also of note is her effort with colleagues to develop the agreement between Carto-Québec and CCA. Finally is her service on the Awards Committee and the Canadian Cartographic Exhibition Committee. Diane has always been approachable and willing to help not only when called upon, but also voluntarily. These outstanding acts have been greatly appreciated and this award is only a token of what the many of us in the CCA feel is a truly outstanding overall contribution.

Response by Diane Lacasse

When I received the phone call from Dr Wood telling me that the CCA Award Committee had decided to give me the award of distinction, I was surprised (and maybe a little stunned!), honoured and touched. I had never thought that my contribution would merit such an honour!

For me, being part of a great Association like the CCA - an association where I have learned so much and met so many wonderful colleagues who are all cartographers and map lovers - it is natural to want to contribute to its success. I want the CCA to keep its dynamism and utility for the next generation of cartographer.

So many members have given their time and effort to make this Association alive and relevant to cartographers (experienced or apprentice) that I wanted to contribute too. I sincerely think that an association becomes what the members make of it. If you want a dynamic and useful association, you have to participate, put some efforts into it, bring ideas and do something to make these ideas happen.

I have been a member for more then ten years and since my first year of membership, I have been seeing red flags in the membership department. What could I do to help to assure that other young cartographers get the same benefit and experience that I got?

I do not feel comfortable with leadership nor do I have administrative skills. My strength is more in the quiet work. So I did what I could. I tried to help by chairing the group on Map Use and Map Design, taking over the work of Secretary, sharing the Cartouche editing work and the organization of the national cartographic exhibit for ICA with my colleague Claire Gosson (Claire has always encouraged me to join her on all sorts of “cartographic adventures” and it has always been a pleasure to work with her!) and helping with some French translation.

A while ago, I realized that most of the CCA Web site was in English only. I thought that if we had a bilingual web site, maybe we could attract members who used to belong to Carto-Québec. Last year, at work, we had to make a list of all the institutions in Canada where GIS, cartography, geography and all the related fields are taught. Several of these institutions are located in Quebec: Université de Sherbrooke, Université du Québec à Chicoutimi, Université du Québec à Montréal, Université Laval, Université du Québec à Trois-Rivières. Students from these universities might join the CCA if they could understand what is written in the CCA web site and learn about the “ACC”. So I started to translate pieces of the web site and I hope to maintain it in both languages so we can use it as a promotional tool in every academic institution in Canada. I don’t know if this will help to recruit new members, but I thought it was worth trying.

I would like to express my sincere thanks to Dr. Wood and to all the members of the Award Committee who honor me with this award. I also want to thank Donna Williams who, besides being the CCA President, is also the manager where I work. Donna has always encouraged me to pursue these projects with the CCA. Unfortunately, my health doesn’t allow me to attend this year’s conference. However, my heart and my spirit are with you and I hope that I will be able to attend and see all of you at future conferences.

Thank you!

Diane Lacasse

number 78, Summer 2010 | Cartouche | www.cca-acc.org
The Executive approved it based upon the following three-fold rationale. One is your contribution as Editor with Barb Duffin of Cartouche from issue 61 in Spring 2006 through issue 72 for Winter 2008. You and Barb were able to arrange for printing of all of these issues at no cost to the CCA through the generosity of Barb’s employer Abitibi Bowater. Among the special features introduced during this time was “Where is this? ... What is this?” that proved to be quite a comment generator. Second is your service as Chair of the Map Production Technology Interest Group. You contributed presentations to nearly all, if not all, the conferences during that time. Those provided interesting and innovative additions to each program. In addition, you provided articles for Cartouche on a regular basis beyond your editing work. Third is your contribution to the work of the Executive in general. You made wise and thoughtful suggestions during meetings whether in person or by telephone. You have always been approachable and willing to help members when called upon. You have been a tireless contributor to the organization in general and to behind the scenes work in making the CCA run smoothly.

For all these reasons, we believe you are worthy of this special Award of Distinction.

Back in May I received a voice mail message from Cliff Wood. Much to my surprise he was informing me that I was going to receive an Award of Distinction for exceptional contributions to the Canadian Cartographic Association. Wow! My first thought was “darn” because due to a prior commitment I wasn’t able to attend the conference. Really though, I feel as if I should be thanking the CCA for the opportunity to be a part of the organization.

Becoming a member of the CCA has been a great experience for me. It all started back in 2004 with a presentation I gave at the annual conference in Lindsay (as a non-member I might add!). Maybe it was the fact that the conference was held at my old alma mater, I don’t know, but I really felt the need to belong to an organization as a cartographer from that point on.

I enjoy the opportunity to gather each year and discuss, learn and have fun. Even if I was required to step out of my comfort zone and give a presentation or moderate a session. It’s kind of like toastmasters but different...

Sharing my thoughts and the cartographic “tid-bits” I came across through Cartouche was exciting. Delivering papers or facilitating sessions was, while slightly stressful, very rewarding. Making sure my “two-cents” were heard at executive meetings built my confidence. However, the highlight for me was the time spent as co-editor of Cartouche. Sometimes I felt like a roving reporter and sometimes a researcher. Ultimately, it was the sense of pride I felt as I dropped the box of stuffed and stamped envelopes at the post office that kept me looking forward to the next issue.

I hope to attend future conferences and continue to share my love of cartography. I also hope that serving the CCA in some form is in my future. It is a great experience and I highly recommend it.

I would like to thank the nominating committee for considering me worthy of this award. It is very special to me and sincerely appreciated. The framed certificate hangs on the wall in my office and looks quite lovely. I am very proud that it is the first thing visitor’s to my office see.
Friday, June 4, 2010 – Regina, Saskatchewan

2:05 pm – 4:05 pm

President Dan Cole called the meeting to order at 2:05 pm and declared that there was a quorum for official approval of motions.

1. Approval of the minutes from the 33rd Annual General Meeting, May 15, 2008 – Approved as circulated on a motion from Alberta Auringer Wood seconded by Glenn Brauen.

2. Matters arising from the 33rd Annual General Meeting minutes – None.

3. Approval of the minutes from the 34th Annual General Meeting, June 2009 – Approved as circulated on a motion by Alberta Auringer Wood and seconded by Gerald Stark.

4. Matters arising from the 34th Annual General Meeting minutes – It was noted that Paul Wozniak has succeeded Byron Moldofsky as the Cartographica Map and Figure Co-Editor.

5. Reports from the Executive and Appointees

a. President – Dan Cole summarized activities as noted in his report.

b. Vice-President – Donna Williams noted the responsibility for membership. She will run something with regional events for students. She expressed the idea of doing videos of conference presentations to launch via YouTube or on our website. She suggested participating in the ESRI map conference competition. She shall follow-up Dan’s discussion with CAGIS regarding joint meetings.

c. Past-President – Cliff Wood reported on the awards for distinguished service to CCA presented to Diane Lacasse and Lori Martin. Donna showed slides of the presentation to Diane. Lori sent her regrets as she is travelling in England at this time. Cliff thanked the Nominations Committee for their contributions.

d. Secretary – Alberta Auringer Wood mentioned her report in the package of materials.

1) Archiving of documents – Upon motion by Alberta and seconded by Elise Pietroniro the policy was approved. It was noted that we need a copy of LAC Guidelines regarding electronic documents. This document can be accessed at: http://www.collectionscanada.gc.ca/government/002/007002-3017-e.html

e. Treasurer – Paul Heersink presented his report. He noted the slight increase in the level of grant from the SSHRC.

f. Interest Group Chairs

1) Analytical Cartography/GIS – Fiona Ryle summarized her report.

1. Name change notification – She notified the meeting that the Executive approved changing the name to GIS and Geovisualization as a more up-to-date representation.

2) Education – Chair Dawn Mooney sent her regrets and her report was in the report package. It was mentioned about the student promotional poster. Christine Homuth, CCA Student Representative, will contact Dawn regarding distribution of the poster.

3) Map Use and Design – Gerald Stark gave highlights of his report.

4) Map Production Technology – Paul Wozniak took over last year from Lori Martin.

1. Name change notification – Paul informed the meeting that the Executive Committee approved changing the name to Mapping Technologies and Spatial Data.
5) History of Cartography – Will van den Hoonaard apologized for so many puns. His “No holds barred” article and other activities were mentioned. There was a question as to whether his presentation on historical cartography could be put on the website.

g. Cartouche Editor – Trish Connor Reid noted the participation of the Executive in submitting material. She was especially happy with having the Student Representative providing submissions. She would welcome ideas about additional items. She reminded all that a Chair does not have to write everything him or herself.

h. Membership Coordinator – Penny Hutton noted the 10-year report with about 8% loss in last year. At this point, we have lost 35 and 11 new, 6 reinstated with 44 members requesting online access for Cartographica. This year there are 147 members so far. She pointed out that she is the contact for U of T Press. Will asked about associate members. He wondered if we could have high school students as associate members, he asked how this could be done. No one volunteered, which means that while there was some interest and discussion, there was not a strong feeling by anyone that it would be a worthwhile pursuit.

i. Canadian National Committee for ICA – Jan Mersey described the seven member national committee that coordinates the reports to ICA. She mentioned Karen VanKerkoerle and Dan Duda who were responsible for the Children’s Map Competition and the National Map Exhibit, respectively. Jan inspected the Prairie Summit displays of maps for items to send to the International Cartographic Congress (ICC) in Paris. A new member on the Committee is Colleen Beard representing ACMLA. The next ICC and General Assembly is in early July 2011 in Paris. The call for papers is out now. A National Report will be done for it and published as a special issue of Geomatica. The website address for the conference is http://www.icc2011.fr

j. Cartographica Editorial Team – Editor Jeremy Crampton’s report was noted. There was a question regarding the search for a new editor as Jeremy’s term was finished at the end of December. It is felt that UTP would rely on recommendations from CCA. Byron asked for a clarification of the relationship with UTP. Bill Crumplin noted that the Canadian Association of Geographers Executive appoints the editor of its journal.

k. CCA web page – Thanks were given from the President for the great improvement in the site over the last year.

l. Student Representative – Christine Homuth gave a report. She has been a member of the Executive since the first of the year. She will work with Donna on recruiting student members.

m. CCA Tribute by Roger Wheate – A special presentation was made to Cliff and Alberta in recognition of their long service to CCA. Roger noted that Cliff had been on the Executive for many years over a 25-year period having served as Secretary, Executive Manager, Vice President, President and Past President. Alberta had served two terms as Secretary during the past 4 years. Roger told about a map of Canada made by a geography student at the University of Northern British Columbia that utilized Pacific Northwest artistic iconography within the outline of each of the provinces. A printed version was presented to Cliff and Alberta. They were overwhelmed due to the unique and beautiful nature of this map as well as the thoughtfulness behind the presentation.

6. Conference Reports

a. Regina 2010 – About 30 CCA members registered for the conference. There were 6 sessions of CCA papers. Overall, there were 406 presentations posters in 103 sessions. 14 maps were submitted for the President’s Prize competition and 5 for the Online Map Competition. As a follow up to this, Dan announced the results. Dawn Mooney, Jeff Wielke, Ken Favroldt served as Judges for the Online Map Competition. Dan announced that the winner of the Best Student Paper Competition was Victoria Tasker. President’s Prize for university students went to Sarah L at Brock University re the Internet tug of war and for the colleges it went to Barbara Pietersma of COGS on Nova Scotia Dykelands. Each will receive a $200 prize. Pamela Soto Abasolo won the CartoQuebec prize. It will be necessary to contact the students to get digital versions of the maps and present the prizes, which Dan and Julia will coordinate. It was decided to include in the next competition that students should send a digital as well as paper copy.

b. 2011? ACMLA, CAG, GEOWEB? A contact with CAG was enthusiastic about the crossover aspects from this year. Gerald would help and also Paul W, as would Roger. Roger would contact Dan Jacobson at the University of Calgary as he is an ICA Commission Chair and is not a CCA member. Paul moved and Cliff seconded pursing this option. Donna and Roger will take the lead on it. Everyone was happy with this decision.

c. 2012 – Joint meeting with CAGIS as an Auto Carto is a possibility. Donna and Dan are working on this.

7. Introduction of Incoming Executive; Appreciation of work by outgoing ExCom members. The new Executive members were introduced: Donna Williams, President; Gerald Stark, Vice President; Dan Cole, Past President; Elise Pietroniro, Sec-
retary; Paul Heersink, Treasurer; with Chairs of the Interest Groups being Dawn Mooney, Education; Fiona Ryle, GIS and Geovisualization; Ken Favrholdt, History of Cartography; Map Use and Design Interest Group, Julia Siemer; and Mapping Technologies and Spatial Data, Paul Wozniak. Byron asked for a vote of thanks to all outgoing Exec members – Applause. There was a transfer of Executive Office Binders, as appropriate, in each case.

8. Election of Nominating Committee – Nominees were Bill Crumplin, Byron Moldofsky, and Glenn Brauen, with Dan Cole as Chair. All were approved unanimously.

9. Future of the Canadian Cartographic Association – It seems to be healthier than last year as indicated by attendance at this meeting. Dan feels it is strong in terms of the people who participate in it. He asked for comments. Gerald noted that students are the future and efforts directed toward attracting them are most important. Stephanie Pyne noted that lots of people are interested in making maps are not cartographers. She will speak to colleagues about this. Trish noted that we should ask people to join by giving them a membership form rather than just talking to them about the organization. Will thinks that we should create a more inviting membership form to drop into a mailbox. Paul W wondered if there had been any contact with students at a university where the conference was being held about doing a special project for the conference. Anna suggested having this group as observers at the AGM. We have to figure out how to maintain contact with instructors in order to encourage students to become members. An individual champion is needed to drive this along. Someone said that these ideas are good for academic cartographers, but not for those doing practical map making. The next question was how to find out what types of workshops, for example, would be desired by practical cartographers. Could we revive the chartered cartographers program? What can we do in terms of practical day-to-day cartography? Some suggestions were about using tools or software currently available and how one can use each in cartography. Dan is talking to one company about getting an article. Joe Fraser noted the hour-long conferences that ESRI has on the web, and suggested posting the schedule in Cartouche. There was some concern about involving software vendors in the conference program. That targeting of practical cartographers is a good idea was of general agreement.

10. Any other business – Anna asked why didn’t we try to do something with NACIS. Dan responded that they are not interested in participating in anything with us. Roger noted that he has back issues of Cartographica, which he will be glad to send to people. It was mentioned that there was yet food to be had!

11. Motion to adjourn was made by Bill Crumplin and seconded by Christine Homuth. The motion was passed and the meeting adjourned at 4:05 pm.

At the annual meeting, CCA/ACC members expressed gratitude for the long and outstanding service of Cliff and Alberta Wood. Roger Wheate’s tribute to them was followed by the presentation of an outstanding map of Canada created by Jennifer Adomeit (UNBC Geography student graduate 2007) featuring Pacific Northwest artistic iconography.
The almost annual orienteering event was held as part of the annual meeting. For the first time, it was not organised by either Diana Hocking or a local club, and so the course designers were concerned it may not match expectations. However just the opposite occurred as all found almost all the controls within the specified time, on a course that explored the Regina campus (with some sneaky shortcuts), and including the adjacent Wascana Park. The biggest challenge was avoiding the army of ground squirrels and their ankle-tripping holes.

### CCA Orienteering Results

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<th>Name</th>
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<tr>
<td>Joe Piwowar</td>
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<tr>
<td>Marcella Snijders</td>
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1. Byron Moldolfsy approves the course.

2. Joe Piwowar snags a control.

3. Competitors take an indoor short cut.

4. Dinner afterwards: (back row against the rock from left): Paul Heersink, Joe Piwowar, Detlef GD, Kirsten Trede, Navdeep Sekhon, Derrick Hambly, Byron Moldolsky, Julia Siemer, Lisa Brunner; on the stairs from top right: Roger Wheate, Will van den Hoonard, Janet Mersey, Fanny Luk, Fiona Ryle; front left to right: Jean-François Bissonnette, Trish Connor, Cliff and Alberta Wood.