

**CCA OFFICE ADDRESS/
BUREAU CENTRAL DE L'ACC**
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Association canadienne de cartographie
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**CCA EXECUTIVE 1988-89
COMITE EXECUTIF DE L'ACC 1988-89**

President: Norman Drummond
Vice-President: Jean Carrière
Past-President: Chris Gold
Treasurer: Louis Cardinal
Secretary: Gordon Shields
Manager: Clifford Wood
Cartographica: Bernard Gutsell

**INTEREST GROUP CHAIRPERSONS
CHEFS DES GROUPES D'INTERET**

Automation: J.Ronald Eastman
Education: C.Peter Keller
History of Cartography: Margaret Hutchison
Map use and design: Diana Dacen Nagel
Technology: David Mark

Keeping in touch...

If you have news or information that you would like to pass along to others in the cartographic community, please send your material to the Newsletter Editor at the above address. Contributions are welcome in either English or French and will be published in the language in which they are received.
The submission deadline for the next issue (Vol 15, #1, 1989) is April 3.

NEW MEMBERS FOR 1989

We welcome the following new members to our association:

Patricia Chalk	London, Ontario
J.E. Crawford	Downsview, Ontario
Iain R. Crighton	Ottawa, Ontario
Michael A. Dyer	Lindsay, Ontario
EBSCO/ CENIAGY	Springfield, Virginia
Scott M. Freundschuh	Buffalo, New York
Michael Gould	Buffalo, New York
William Mark Gray	Lindsay, Ontario
David G. MacNeil	St. John's, Newfoundland
Thomas L. Millette	East Longmeadow, Massachusetts
Eva Siekierska	Ottawa, Ontario
Barry A. Silic	Lakewood, Colorado
Sir Sanford Fleming College	Lindsay, Ontario
Spencer Sutton	Kanata, Ontario
Nancy K. Tubbs	Aurora, Colorado
Kristina Wenger	Berlin, Fed. Rep. Germany
Peter Whitehead	Edmonton, Alberta
Susan Wilson	Pickering, Ontario

CORPORATE MEMBERS

EBSCO/CENIAGY	Springfield, VA.
ESRI Canada Ltd.	Toronto, Ontario
Intergraph Systems ltd.	Calgary, Alberta
J.M. Ellis Ltd.	Metcalf, Ontario
Land Information Branch, Alberta Dept of Forestry, Lands and Wildlife	Edmonton, Alberta
Metropole Litho. Inc.	Anjou, Quebec
Metric Mapping Ltd.	Calgary, Alberta
Nucor Computing Services,	Kanata, Ontario
Pierre DesMarais Inc.	St-Laurent, Quebec
Schwerdt GraphicArts. Ltd.	Brampton, Ontario
Statistics Canada,	Ottawa, Ontario
Stewart, Weir Land Data Inc.	Edmonton, Alberta
Tydac Technologies Inc.	Ottawa, Ontario
Weller Cartographic Services	Surrey, B.C.

The Canadian Cartographic Association gratefully acknowledges the financial support given by the Social Sciences and Humanities Research Council of Canada

L'Association canadienne de cartographie remercie vivement le Conseil de recherches en sciences humaines du Canada pour son apport financier.

From the President's Desk...

Dear colleagues,

Your executive committee held its mid-winter meeting February 4-5, 1989 at the Université du Québec à Montreal. You were represented by members literally from Victoria to St. John's. Discussion of a wide range of topics showed that your association is sound and active, but that it could be more so- at all levels, in all regions and in all aspects of the discipline. Your help is needed, from willingness to run for office, to serve on committees and in Interest Groups and to submit papers to the Newsletter, Cartographica and to the AGM in Halifax this spring.

Financially, we are just at a break-even point with cash flow or at a small deficit position. This is invigorating! It can be rectified by paying your dues, enrolling new members and by voting for an increase in the annual membership fees. You will be asked to approve at Halifax a fee increase for regular members from \$50 to \$70 for 1990; other categories would see proportional fee increases.

The executive proposes to continue to managerial position in a modified format. A suitable candidate is being sought. More hard-working individuals are always welcome and needed to assure the smooth, efficient continuity of the CCA. You can participate by submitting names for the Nicholson Scholarship and entries for the President's Prize competition.

We know that many of our members will be making the effort to get to the Annual Meeting in Halifax, June 6-9, and participate in the joint day with the Canadian Institute of Surveying and Mapping (CISM) on GIS, the lobster supper, workshops etc. See this issue of the newsletter for more details.

Others will also be part of the GIS National Conference in Ottawa in early March. Some of you will also be taking part in the meetings of regional associations such as Carto-Quebec, OICC, and PICS. Wherever you are, wear your CCA pin proudly! If you need one, contact the treasurer, Louis Cardinal.

Cartographically Yours,
Norman Drummond.

Norman L. Nicholson Scholarship in Cartography Bourse Norman L. Nicholson en cartographie

Last Call Dernier appel

The Canadian Cartographic Association is proud to offer the Norman L. Nicholson Scholarship in Cartography. This scholarship, valued at \$500.00 is awarded annually to recognize exceptional student achievement.

Consult the last issue of the Newsletter to see if you qualify.

To apply, you must submit the following:

1. a completed application form (available from the CCA Office or call (709) 737-8988)
2. an official university or community college transcript
3. Letters of recommendation from two faculty members familiar with your work.
4. a one page typed statement of your cartographic goals.

All materials must be received by the Awards Committee by March 15. Send all information to the awards committee at the CCA office address.

L'Association canadienne de cartographie offre fièrement la bourse Norman L. Nicholson en cartographie. Cette bourse, dont la valeur est \$500.00, est remise dans le but de reconnaître les étudiants exceptionnels.

Veuillez consulter le numéro passé du Newsletter pour vérifier votre candidature.

Pour postuler, il faut soumettre les documents suivants:

1. un formulaire de demande complété.
2. un relevé de notes officiel de tous les cours à l'université ou CEGEP.
3. des lettres de recommandations de deux membres de corps enseignant qui connaissent bien votre travail.
4. un exposé d'une page indiquant vos buts cartographiques.

Les documents doivent parvenir au Comité des bourses (a/s Bureau Central de l'ACC) le 15 mars le plus tard.

**CANADIAN CARTOGRAPHIC ASSOCIATION
ANNUAL CONFERENCE
JUNE 6-9, 1989**

Saint Mary's University
Halifax, Nova Scotia

LAST CALL FOR PAPERS

The Canadian Cartographic Association will hold its annual conference in conjunction with the Canadian Institute of Surveying and Mapping in Halifax from June 6 to 9, 1989. Planning is well underway for this event, and we have what promises to be a very exciting program. Nevertheless, THERE IS STILL TIME to submit a paper or workshop proposal, and you are encouraged to do so!

Due to the success of the workshops held at last year's meeting, several more have been arranged this year and already they appear to be very attractive. Several special papers sessions are now organized, and the response to the request for papers (regular or student session) has been excellent- but keep them coming!

The particular feature of this meeting that should be memorable (apart from the lobster supper on the beach!) is the joint day with the Canadian Institute of Surveying and Mapping at the Halifax Sheraton- a few yards away from the Bluenose II and the Lower Deck pub. The whole day is dedicated to sessions on GIS, and there is access to the large exhibit area where many GIS and surveying exhibits will be on display. We are also invited to share in the CISM maritime night, which promises dinner and dance at a very modest cost.

The preliminary program at present is:

Tuesday Evening 6 June

19:00 - 21:00 Registration and Ice-breaker
Find out what your friends
have been up to!

Wednesday 7 June

9:00 - 10:30 Plenary Session
"The Changing Role of
Cartography"
10:30 - 12:00 History of Cartography session
10:30 - 12:00 Macintosh Workshop
cartographic applications of
the Mac
13:30 - 15:00 Technology session
reprographics techniques
13:30 - 15:00 Cartographic Education
workshop
15:00 - 16:30 Manual Technology
workshop
18:00 - ? CISM Maritime Night

Thursday 8 June

8:30 - 17:00 CCA/CISM JOINT
SESSIONS ON GIS
° GIS Education
° National Developments in GIS
° GIS Applications
19:00 - ? CCA Maritime Fest
Lobster barbeque on the beach!

Friday 9 June

9:00 - 10:30 Student Papers
9:00 - 10:30 Junior Atlas of Newfoundland
Workshop
10:30 - 12:00 CCA Annual General Meeting
1:30 - 3:00 Map Use session
1:30 - 3:00 Cartography/GIS/Remote
Sensing
Workshop on curriculum
3:00 - 4:30 Automation session
3:00 - 4:30 Workshop on generating map
projections by computer.

As well as the regular sessions, there are, of course, the irregular sessions. Depending on demand, these include:

- ° A trip on the Bluenose II (June 10)
- ° A field trip to Peggy's Cove (June 10)
- ° A visit to the College of Geographic Sciences, Lawrencetown (June 10)
- ° A guided tour of Halifax by an urban geographer (June 10)
- ° A (mis)guided tour of the excellent local pubs

Please note that this is the LAST CHANCE to submit a paper or workshop suggestion. Submit any contributions to:

Chris Gold,
Department of Geography,
Memorial University of Newfoundland,
St. John's Newfoundland A1B 3X9

See page 17 for travel assistance application/ Voir page 18 pour le demande d'aide au voyage au congrès

CCA EDUCATIONAL MICROCOMPUTER SOFTWARE COMPETITION

This is a competition organized by the Automation Interest Group and the Education Interest Group. We are looking for submissions of educational software developed by you or by your students for cartography which runs on a microcomputer.

Submissions must include a diskette with the executable program as well as a written report outlining the hardware and operating system required to run the program, the purpose of the program, its design concept and possible applications.

DEADLINE FOR SUBMISSIONS: MAY 15, 1989

Send submissions or enquiries to

Dr. C. Peter Keller,

CCA Education Interest Group Chairperson

Department of Geography,

University of Victoria,

Victoria, B.C. V8W 2Y2

or

Dr. J. R. Eastman,

CCA Automation Interest Group Chairperson,

Graduate School of Geography,

Clark University,

950 Main St.,

Worcester MA. 01610 USA.

Where to stay in Halifax...other than the St. Mary's residences

There are several hotels in the vicinity of St. Mary's University.

Lord Nelson Hotel (902) 423-6331

Single \$55.00 *

Double \$55.00 *

Approximately a 10 minute walk from

St. Mary's University

*This rate applies to participants at events sponsored by St. Mary's University

Nova Scotian Hotel (902) 423-7231

Single \$81.00

Double \$87.00

Approximately a 20 minute walk from

St. Mary's University

Cambridge Suites 1-800-565-1263

Single \$85.00 (approx)

Double \$95.00 (approx)

Approximately a 25 minute walk from

St. Mary's University

CALL FOR SUBMISSIONS CCA STUDENT PAPER COMPETITION

The Canadian Cartographic Association is pleased to announce the third annual student paper competition to be presented at the association's annual meeting, to be held this year at:

Saint Mary's University,

Halifax, Nova Scotia

June 6-9, 1989

We would like you to encourage students in your department who are currently carrying out, or who have recently completed a research project related to an aspect of cartography, to share their ideas with us by participating in our meeting.

The abstract and paper must be submitted in either English or French. Speakers will have 20 minutes to present their paper and to respond to questions. Students do not have to be members of the CCA in order to submit a paper, but student members will be eligible to apply for reimbursement of travel costs to and from the conference.

CONFERENCE FEES WILL BE WAIVED FOR THE FIRST FIVE ACCEPTED ENTRIES.

Submit abstracts (200-300 words) with name, address and title and faculty advisor's name to:

Dr. C. Peter Keller,

CCA Education Interest Group Chairperson

Department of Geography,

University of Victoria,

Victoria, B.C. V8W 2Y2

DEADLINE FOR ABSTRACTS: APRIL 30, 1989

DEADLINE FOR PAPERS: MAY 31, 1989

Interested in advertising in the Newsletter???

Why not take advantage of a good deal and advertise your company's products, services etc. in the Newsletter? The cost is a reasonable \$100 per full page per issue. If you are a corporate member of the Canadian Cartographic Association, you are entitled to one-half page per issue free of charge! Each issue of the Newsletter is distributed to more than 400 individuals, institutions and companies. Contact the editor for more details and let others in the cartographic community know what your company can do for them!

Canadian Cartographic Association L'Association Canadienne de Cartographie

1989

President's Prize Competition Concours pour le Prix du Président

Submissions are invited for the 1989-90 President's Prize competition. The competition is open to students of post-secondary institutions and to persons occupying junior positions in places of employment where maps are made or used. The competition this year will be for awards in five general categories, each with a small monetary component, (i.e. in the order of \$50.00 each, except for category five), and certificates will be presented at the 1989 Annual Meeting in Halifax. In the monochromatic and colour map categories, awards will be given to the best submission from a technical institution and to the best submission from a degree-granting university.

Vous êtes invités à soumettre votre projet au concours pour le prix du président 1989-90. Ce concours est ouvert aux étudiants de niveau post-secondaire ainsi qu'aux personnes venant d'accéder au marché du travail et occupant depuis peu un emploi dans un organisme fabriquant ou utilisant des cartes. Le concours cette année, comprend de prix répartis dans cinq catégories. Ce prix consiste en un montant d'argent de l'ordre de 50,00\$ et un certificat. Les prix seront décernés lors de la réunion annuelle de l'ACC que se tiendra cette année à Halifax.

The categories of award are:/Les cinq catégories comprennent:

1. Monochromatic Map (Formal or journalistic style): A printed map in black and white suitable as an accompaniment with a submission to a learned academic journal, with a brief written description (i.e. less than 500 words) stating the purpose of the map. Emphasis in this category will be placed on innovation with respect to subject selection and interpretation, symbolization and graphic design.

Une carte monochrome (conventionnelle ou de type journalistique): une carte imprimée en noir et blanc, de niveau acceptable en tant que document d'accompagnement pour un article soumis à une revue scientifique. Celle-ci devrait être accompagnée d'une brève description (maximum 500 mots) indiquant le but de la carte. L'évaluation pour cette catégorie, portera sur l'innovations en regard du sujet choisi, de son interprétation, de sa symbolisation et de la qualité graphique.

2. Printed map in Colour (or taken to the proof stage): submitted with a brief written description (i.e. less than 500 words) stating the design objectives of the map. Emphasis in this category will be placed on excellence of execution and fulfillment of stated design objectives.

Une carte imprimée couleur (ou à l'étape de l'épreuve couleur): soumise avec une brève description (maximum 500 mots) indiquant le but de la carte. L'évaluation portera sur la qualité de l'exécution et la réalisation des objectifs déclarés du projet

3. Formal Written Page: on any theoretical, administrative or practical topic related to cartography. The paper of approximately 2000 words should be submitted in the style and format required by CARTOGRAPHICA.

Un texte écrit conventionnel: portant sur des sujets cartographiques d'ordre théorique, administratif ou pratique. L'article d'environ 2000 mots devrait être soumis dans le style et le format exigé par la revue CARTOGRAPHICA.

4. Computer algorithm (specific to a cartographic problem): submitted in code form in any language with a brief description and evidence of operation.

Un algorithme d'ordinateur (spécifique à résoudre un problème cartographique); soumis sous forme de code, de quelque langage que ce soit, accompagné d'une brève description et d'une preuve qu'il fonctionne.

5. Best 'journalistic' map design. (prize is US\$200.00), donated by Time Magazine). Map should be accompanied by a brief written description, stating the purpose of the map.

Le mieux 'journalistique' dessin cartographique. Les récompenses sont US200\$ donnée par Time Magazine. Celle-ci devrait être accompagnée d'une brève description (maximum 500 mots) indiquant le but de la carte.

Submissions should reach the CCA Office by April 20, 1989. Membership in the CCA is not required. CCA c/o Department of Geography, Memorial University of Newfoundland, St. John's Newfoundland A1B 3X9
Les candidatures au concours doivent parvenir à CCA, Department of Geography, Memorial University of Newfoundland, St-Jean, Terre-Neuve, A1B 3X9, au plus tard le 20 avril 1989. Il n'est pas nécessaire d'être membre de l'ACC pour participer au concours.

**The following individuals are nominated for office on the executive of the
Canadian Cartographic Association.**

Vice-president:

- °Claudette Leblanc LRIS, Amherst, Nova Scotia
- °Stefan Palko Energy, Mines and Resources, Ottawa

Treasurer

- °Gary McManus Memorial University of Newfoundland, St. John's

Technology Interest Group

- °Roy Doyon University of Massachusetts, Amherst
- °Tim Wood Ontario Min. of Transportation, Downsview, Ontario

Education Interest Group

- °Jim Britton Sir Sandford Fleming College, Lindsay, Ontario
- °Brian Klinkenberg University of British Columbia, Vancouver

The following bio-sketches have been supplied to the editor.

VICE- PRESIDENT

CLAUDETTE LEBLANC

Claudette received a diploma in Engineering Technology from the New Brunswick Institute of Technology in 1968. She then participated in a cartographic training program at LRIS (formerly MRMS Inc.), Amherst, Nova Scotia where she is presently employed as supervisor of Cartography and Photomechanics.

Her professional experience includes active participation in the design, production and/or supervision and management of several major thematic cartographic projects. She is presently participating in a long-term major project to create a digital data base and derived atlas for the Bay of Fundy, Gulf of Maine and Georges Bank region. This project is being carried out jointly by Dalhousie University and St. Mary's University in Halifax and LRIS.

More recently her cartographic experience has diversified to include co-authoring the training manuals entitled "Marine Resource Mapping: an Introductory Manual" and "The Application of Remote Sensing Technology to Marine Fisheries: an Introductory Manual". These were published by the Food and Agriculture Organization (FAO) of the United Nations, in Rome, Italy.

Claudette served as chairperson for the Map Design Interest Group of the CCA from 1986 to 1988 and is

presently active in the organization of the 1989 CCA Conference to be held in Halifax.

She considers it important to diversify the CCA membership to include more representatives from the private sector and industry. This diversification would assist in making the CCA an even more dynamic association with increased membership and participation in its activities.

STEFAN PALKO

Stefan Palko is acting chief of the group of geographers conducting research for The National Atlas of Canada in Energy, Mines and Resources Canada.

He received his Engineering degree in Geodesy and Cartography in 1967 from Prague University and his M.Sc. degree in Geography in 1972 from the University of Saskatchewan, Saskatoon. He has retained his interest in map-making by working as a Cartographer at Brandon University, at Carleton University and, since 1976, as a Geographer with the National Atlas of Canada. He has also served as the Newsletter Editor for the Ontario Institute of Chartered Cartographers and as a member of the Editorial Board of The Canadian Cartographer from 1977 to 1980.

He would like to strengthen the Canadian Cartographic Association by helping it to develop closer links with the Canadian Association of Geographers, as well as with other cartographic and GIS-oriented professional organizations.

**TECHNOLOGY INTEREST GROUP
CHAIRPERSONS**

TIM WOOD

Professional Affiliations:

- Ontario Institute of Chartered Cartographers (since 1982)
- North American Cartographic Information Society (since 1980)
- American Cartographic Association

Relevant Educational or Experiential Background:

- B.A. Geography, McMaster University (1970)
- Diploma in Cartography, Glasgow University (1971)
- Head, Cartography Section, Ministry of Transportation, Ontario (since 1978)

Service to the CCA:

- CCA member since 1975
- Map Use Interest Group Chairman (1980-81)
- involved with most of the annual conferences as a speaker or as a coordinator of various workshops from map use and map design to modern reprographic techniques

Focus Area of Activity of the Interest Group:

- central focus of the group would be on how the rapid development in computer graphics (Micros to Main Frames, Desktop Publishing to Data Base generated typesetting) has affected and will affect current conventional map-making in terms of productivity, product lines, product techniques etc...)

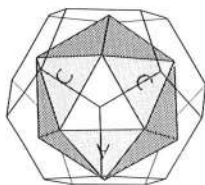
Type of Activity(s) to be Planned:

- workshop at the Annual Conference
- utilize the "Technical Notes and Queries" publication to spread the word
- coordinate a local interest group event (round-table format) if interest warrants

Possible Place(s) of Venue of the Activity(s):

- within two hours of the Toronto area
- local coordinators would have to be recruited for any events outside the Toronto area.

Ballots will be mailed to members in early April



ROY DOYON

Department of Geology and Geography
University of Massachusetts at Amherst

Education: M.A. 1983, University of Georgia

Relevant Experience:

- Production Director, Atlas of Massachusetts, in progress.
- Production Director, Massachusetts River Basin Atlas, in progress.
- Research Coordinator and Photo-Cartographic Supervisor, Atlas of Georgia, 1985.
- Atlas Workshop, CCA Annual Meeting, 1988, Toronto.

Focus Area:

My interests include all aspects of pre-atlas press production. Preparing for a press run involves making a number of cartographic decisions and in order to prevent costly and time-consuming mistakes atlas producers should be cognizant of the multitude of decisions that will be required of them. I would like to establish a forum for the exchange or distribution of technical information useful to prospective atlas producers. Workshops at our annual meetings and the compilation of an informal "technical notes" to accumulate useful production techniques are two specific activities I would like to organize.

TREASURER

GARY E. McMANUS

Gary E. McManus is Associate Director of the Cartographic Laboratory (MUNCL) and Cartographer for the Geography Department at Memorial University of Newfoundland. Primary interests include thematic cartography, design and production techniques. Currently working on the "Junior" Atlas of Newfoundland.

Education includes a B.A. in Geography from Indiana University (1973) and graduate studies in cartography at the University of Wisconsin (1973-75). I have been a member of the CCA since 1980, serving on the nominations committee in 1983 and 1988.

As treasurer, I will strive to ensure the timely and expedient execution of my duties to ensure that the membership continues to receive the high quality and professional service to which they have grown accustomed. I intend to closely examine current procedures as they relate to this position and see what, if anything, can be done to increase efficiency and service to the association.

EDUCATION INTEREST GROUP CHAIRPERSONS

JIM BRITTON

Born in London, England, I took my formal training at Sir Sandford Fleming College, Lindsay. After graduation I operated my own cartographic firm before returning to Sir Sandford Fleming College as a faculty member in 1986. I was appointed Department Coordinator in 1987. I currently teach courses in general mapping, traditional, and computer-based cartography. I first joined the CCA in 1979.

My major interest in cartographic education is in the function of the cartographer as a visual designer and the integration of that role with the diverse technical levels of map production. I am also very interested in examining the future role of cartographers within the multi-disciplinary application of GIS technology, and of course, its effect on future cartographic curricula. I feel that a large amount of work has been done in examining the impact of computer technology, and cartography as a visual communication vehicle has been, in part, forgotten.

I would like to see the Education Interest Group continue/update the curricula review at post-secondary institutions. The currency of this document (digital document?) is of extreme importance with the growth and impact of GIS and related curricula in the past years. I would like to promote workshops/sessions that bring together individuals from the visual design and the digital technology ends of the discipline to generate ideas on more integrated approaches to cartography and cartographic applications within GIS.

BRIAN KLINKENBERG

Currently employed as an Assistant Professor in the Department of Geography at the University of British Columbia, Brian has been a member of the CCA (off and on) since the mid-seventies.

He was born in Ottawa, and was a member of the first graduating class of the Survey Science program at Erindale College, University of Toronto, in 1976. After becoming a professional Ontario Land Surveyor in 1979, the lure of academia became too strong and he returned to school, wherein he obtained his M.Sc. (1983) and Ph.D. (1988) from the University of Western Ontario. At UBC, Brian teaches courses in cartography, introductory remote sensing and geographic information systems.

Cartography, as taught in most Canadian universities, has never had the stature that it has in American universities- where a department may have three or more faculty members with interests in cartography. As a result, those with cartographic interests in Canada have had to concentrate their teaching interests in one or two areas. Thus, changing paradigm shifts can have a much more significant impact on Canadian cartographers than on American cartographers. We must carefully consider the implications of the changing technologies when redesigning our courses, and accurately gauge where the profession is going. What role can and should departmental cartographic technicians play in teaching undergraduate courses, and what are the implications of such assignments?

INTERNATIONAL CARTOGRAPHIC ASSOCIATION / ASSOCIATION CARTOGRAPHIQUE INTERNATIONALE

NEW ICA PUBLICATIONS



Basic Cartography for Students and Technicians. Volume 2

edited by R.W. Anson

30 x 21 cm. xii + 144 pages. 319 illus. 1988.

Price: £24.50/US\$44.00 Softbound (ISBN 1 85166 232 4); £38.00/US\$68.50 Casebound (ISBN 1 85166 249 9)

This book, along with Volume 1* (published in 1984), will provide technicians, undergraduates and postgraduates with a comprehensive source of basic cartographic practice for both teaching and reference purposes. Until comparatively recently both teachers and students were forced to rely on specialist manuals and articles appearing in learned journals. What textbooks were produced tended to relate to specific aspects of the discipline and were, in the main, too specialist for use by students and technicians.

In order to produce the training literature required the ICA assembled a team of internationally known academic and professional cartographers to produce a work suitable for use in education and training and which, with appropriate teacher input, could be used by those with varying intended levels of knowledge and ability. A highly graphic approach has deliberately been adopted in order to enhance understanding of technical detail incorporated in the text, and to illustrate the graphic potential of the theory described.

* Basic Cartography for Students and Technicians. Volume 1. £19.50/US\$35.00

CONTENTS: 1. Topographic cartography (*C. R. Böhme*). 2. Map compilation (*E. Speiss*). 3. Generalisation (*M. J. Balodis*). 4. Thematic cartography (*E. Lehmann and R. Ogrissek*). 5. Computer-assisted cartography (*N. Kadmon*). Index.

News from Manitoba...

The City of Winnipeg and the Province of Manitoba have agreed to spend \$2.7 million to computerize their land mapping services.

The agreement, signed in November 1988, will save the city \$155,000 annually in map maintenance and assessment revisions.

Initially, the program will allow assessment and land title searches to be done through a computer. It should also put an end to the long delays at the Land Titles Office. At the end of the five-year program, every property in the city will be entered into the computer and quick access will be provided to information on ownership, assessment, land titles and addresses.

The new Geographic Information System of the Manitoba Department of Natural Resources became a topic of conversation recently in the provincial legislature....

During question period on November 8, Liberal MLA Herold Driedger asked Natural Resources Minister Jack Penner why the new computerized mapping system was taking so long to implement. The system, installed in early 1987 for \$670,000 was supposed to cut the cost of map production from \$7500 per sheet to \$850, and turn out 300 sheets each year. Just 3 map sheets have been produced to date.

Malcolm Brown, Winnipeg.

SURVEY ON CARTOGRAPHY, GIS AND REMOTE SENSING COURSES IN CANADA

Jacqueline Anderson, Department of Geography, Concordia University, Montreal would like to thank those who have returned the questionnaire relating to the survey of undergraduate cartography, GIS and remote sensing courses offered in Canadian universities, which was distributed in January.

For those who have not yet completed the survey, could you please ensure that the questionnaires (pink forms) do not disappear at the bottom on your "in" tray!!

Please note that in question 17, "macrocomputer" should read "mainframe computer".

If you have any questions regarding the survey, please contact:

Prof. J. Anderson,
Department of Geography,
Concordia University,
1455 Boul. de Maisonneuve
Montreal, Quebec H3G 1M8
(514) 848-2052

Bitnet: JAHFH10@CONU2.BITNET or
JAHFH10@VAX2.CONCORDIA.CA

IDRISI

A Grid-Based Geographic Analysis System

❖ A powerful but inexpensive research system for MS-DOS computers

Over 50 program modules for Data Entry (includes full vector-to-raster conversion and rubber-sheet rectification), Storage, Management (including vector, raster and attribute values files), Display, and Analysis (including a full complement of raster GIS procedures)
220 page manual and 8 disks include exercises and sample data sets
CGA, EGA and Hercules graphics support (VGA - Summer '89)
IBM, Epson, DEC, HP PaintJet printer support
Requires only 128K, MS-DOS 2.11 or greater, and 2 floppy drives (640K and a hard disk are strongly recommended)
Raster images up to 10,000 x 32,000 in byte, integer, real (floating point) and run-length encoded formats
Integrates user-created modules created in any computer language
File-compatible with Micropics-EGA. Import/Export utilities also provided for MAP, pMAP, ODYSSEY, USGS DLG and CTG formats, and Landsat TM and MSS CCT-X format tapes and disks

❖ NEW! Version 3 adds: (Version 2 owners - call for upgrade policy)

Spatial statistics modules for trend surface analysis, spatial autocorrelation, quadrat analysis, and more
Full support for byte and run-length encoded files - map data files are typically reduced by 75-90%
3D Orthographic Perspective views
Linear, quadratic, and cubic rubber-sheet transformation (raster or vector) with linear and bi-linear resampling of raster images
Non-spatial attribute values files, with links to geographic definition files, for use with DBMS and spreadsheet programs

❖ Price: (in \$US payable to Clark University)

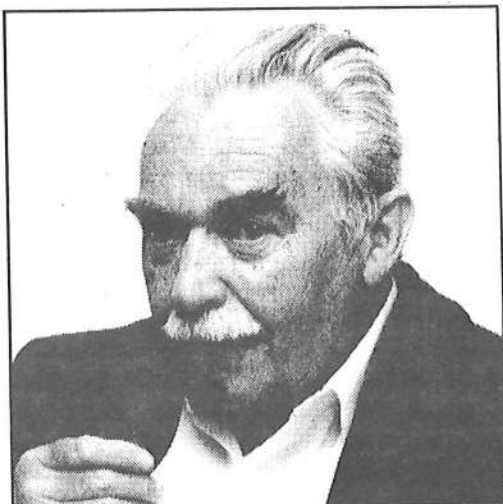
Students: \$ 50.00 Academic/Research: \$ 100.00 General: \$ 300.00
Massachusetts Residents, please add 5% sales tax (or supply tax-exemption number)

❖ Shipping and Handling Charges:

USA	\$ 8.00 (first class airmail)	Central America	\$12.00 surface or \$18.00 airmail
Canada	\$11.00 (first class airmail)	South America	\$12.00 surface or \$29.00 airmail
Europe	\$12.00 surface or \$29.00 airmail	Asia, Africa, Australia	\$12.00 surface or \$39.00 airmail

❖ Contact:

IDRISI/Clark University/Graduate School of Geography/950 Main Street, Worcester, Massachusetts 01610, USA
Tel: (508) 793-7336 or BITNET to IDRISI@CLARKU



R.W. Packer
1923-1988

It is with sadness that we report the death of R.W. "Bob" Packer, on 11 October 1988, following a lengthy illness. A longtime member of the Canadian Cartographic Association, he made outstanding contributions to the fields of geography and cartography during his teaching career of nearly forty years at the University of Western Ontario.

Born and educated in England, Bob Packer served with the Royal Air Force during World War II, and following the war, studied geography at the University of Cambridge. Prior to his arrival at the University of Western Ontario, he was employed at the Geographical Bureau, Department of Mines in Ottawa, and as well,

was a member of the "Nauja" Expedition which made a coastal survey of James Bay, Hudson Bay and western Baffin Island in the late forties.

As a teacher of geography, he was able to bring the subject to life for countless thousands of students, influencing many to continue with geography as a career. While more known in geographical circles for his work in physical geography and climatology, Bob was also instrumental in introducing students at Western to the world of cartography. One of the more well-known results of his work in teaching cartography was the production each term of a booklet of student cartograms, serving to incorporate many of the techniques acquired during the introductory cartography course.

His contributions to the professional development of geography and cartography are well known, and are witnessed to by his major role in the establishment of the Canadian Association of Geographers.

In 1988, his service to the Canadian Association of Geographers was recognized when he was awarded the CAG Award for Service to the Profession of Geography. While on the executive of the Canadian Cartographic Association (1986-88), he was able to offer valuable insight as a result of his long experience and was actively involved on the committee to establish the guidelines for the Nicholson Scholarship.

To honour his career, the Department of Geography at Western hosted a one day symposium in October, featuring numerous speakers focussing on climatic change and the Great Lakes environment.

His presence and humour will be missed by all of us. He is survived by his wife Maydie, and six children.

President signs legislation requiring one-year land information study.

"The significance of President Reagan signing into law the federal Land Exchange Facilitation Act, which includes a provision for a one-year land information study, cannot be overestimated" said James Clapp, director of Wisconsin's Center for Land Information Studies and president of the American Congress on Surveying and Mapping. (ACSM).

Section 8 of the bill which Reagan signed into law on August 20, 1988 calls for a one-year study that will assess current surveying and mapping methods utilized by federal agencies in the US; define the roles of federal agencies, government entities and the private sector in land information systems (LIS); and develop model federal land information standards.

In its report on the legislation, the Senate specifically stated that the ACSM and ASPRS "have played a major role in developing, coordinating and promoting land information systems since 1980..."

A request for specialized software...

I would like information on the following programs:

1. iterative partitioning or classification of univariate data with a contiguity constraint in order to create regions (this could be Jenks' classification program modified with a contiguity constraint).
2. hierarchical classification of univariate data with a contiguity constraint in order to create regions.
3. a program to create a geographic data base with a specified level of spatial autocorrelation (given data values and a base map, assign data to unit areas on the map in order to produce a geographic data base with a specified level of spatial autocorrelation).

Any program listings, algorithms or references would be appreciated.

Ruth Anderson Rowles
G0560AJ@UKCC.UKY.UDU.Bitnet

Remote Sensing News

Developments in remote sensing should be of interest to cartographers given the close link between these fields particularly within GIS, which shares with image processing, common bonds of data capture, analytical capabilities, and environmental information. As expressed by Maurice Nyquist (1987) however, in rephrasing the old adage... "One image is worth 1000 polygons!"

MEETINGS

ERIM: seventh Thematic Conference

"Remote Sensing for Exploration Geology". Calgary, Alberta, October 2-6, 1989.

Preliminary Call for Papers. This is the first time this conference has met in Canada. It will be oriented towards remote sensing for minerals and hydrocarbons, but with sessions in diverse topics, including environmental applications, mapping in glaciated terrain, and geographical information systems. Abstract submissions by March 22, 1989 to: ERIM/Thematic Conferences,

Dr. Robert H. Rogers, P.O.Box 8618, Ann Arbor, MI 48107-8618, USA.

(Tel: 313-994-1200, ext 3234: Nancy Wallman)

IGARSS'89 / 12th Canadian Symposium on Remote Sensing. Vancouver, B.C., July 10-14, 1989. First Call for Papers.

"Quantitative Remote sensing: An Economic Tool for the '90's". This meeting to be held on the campus of the University of British Columbia, promises to be the largest remote sensing meeting held in Canada. It will also include the URSI Commission F technical sessions. Suggested topics include: Global change studies, economic and political issues, land, ocean, ice/snow, atmospheric and extra-terrestrial applications, image and data processing. Papers will be accepted in either English or French. The deadline for submission of abstracts is December 31, 1988:

IGARSS '89/12th Canadian Symposium on Remote Sensing, Suite 801, 750 Jervis St., Vancouver, B.C. V6E 2A9. (Tel: 604-681-5226)

Calgary Remote Sensing Group

Remote Sensing enthusiasts in Calgary met for an inaugural organisational meeting on December 6, hosted by Intera Technologies, at the instigation of Diane Thompson, Chairman of the Canadian Remote Sensing Society. Three speakers presented examples of their work in the field: Greg McAvoy (Intera) on arctic transportation monitoring programs using SAR; Dr. Steven Franklin (Geography Dept., University of Calgary) on the integration of digital elevation models and satellite image data, and Terry Yasui (Coles, Gilbert & Associates) on the use of directional filters to enhance lineaments, with SPOT data. There was a unanimous agreement to attempt to meet regularly, perhaps 3-4 times a year, with representatives from Intergraph and the University offering to host future meetings. Persons interested in attending or wanting more information should contact: Diane Thompson, Intera Technologies, 266-0900.

PRODUCTS

GEOCARTO International, 1987, #3.

Special issue on remote sensing in Canada.

This volume, coordinated by Dr. Robert Ryerson (CCRS), includes articles on MOSAICS, Image processing to decision making, topographic mapping using STAR-1 radar data, digital remote sensing for forestry, topographic mapping from satellite data, GIS and remote sensing data integration. All four 1987 issues of Geocarto International are available for US \$20 from: Geocarto International Centre, G.P.O. Box 4122, Hong Kong.

'DracoNews' : DRAGON Level 2 being shipped

The Newsletter for the DRAGON image processing system reports the release of Level 2, featuring 640x400 or 512x512 with 256 colours or gray levels, using VGA graphics, and enhanced classification features. More details and information from: Goldin-Rudahl Systems, Inc., Six University Drive, Suite 213, Amherst, MA 01002, USA. (Tel: 413-253-7340)

KRS: Kodak Remote Sensing

Eastman Kodak has formed a subsidiary, KRS as an end-to-end supplier of digital and photographic processing systems. Services include data enhancements and conversion of digital tapes to film. The company prints images to film, interprets and distributes data products to the end user, compatible with major GIS. The heart of the system is a VAX 11/785 mainframe from DEC. In software, KRS is a distributor of the Meridian geocoding system from McDonald Detwiler and Associates (Richmond, B.C.). Further information from: KRS Remote Sensing, 1200 Caraway Court, Landover, MD 20785, USA. (Tel: 301-772-7800)

Eidetic Digital Imaging Ltd.

Announces the development of 512x512 and 1024x1024 resolution systems to complement their existing RS10/12 software which currently divides a 512x512 screen into four quadrants. Software prices expected to range from \$400-800 when purchased in conjunction with an RS10/12 system. Eidetic also plans 'RSVG', to run on EGA/VGA graphics, aimed particularly for educational institutions.

Further information:

Eidetic Digital Imaging Ltd.,
1210 Marin Park Drive, Brentwood Bay,
B.C. V0S 1A0 (Tel: 604-652-9326)

- Roger Wheate

GIS AND REMOTE SENSING ACTIVITIES IN THE DEPARTMENT OF SURVEYING ENGINEERING AT THE UNIVERSITY OF CALGARY

The Department is establishing "C-LIS" - a centre for Land Information Systems. The following research personnel are involved:

Dr. J.A.R. Blais

Information theory, estimation theory,
analytical photogrammetry

Dr. M.A. Chapman

Analytical photogrammetry, digital mapping,
digital elevation models, digital image
processing

Mr. M. Feuchtwanger (CCA member)

Geographic database models, terrain data
modelling, LIS.

Mr. H.A. Karimi (CCA member)

Artificial intelligence in LIS, route guidance
systems, distributed LIS, machine learning.

Dr. E.J. Krakiwsky

Digital route networks, positioning systems.

Dr. G.D. Lodwick

Remote sensing, land-related data integration,
LIS, resource mapping.

Mr. M.P. Mephram

LIS, data acquisition and validation, computer
modelling

Various graduate students

consistency in cadastral databases, uncertainty in LIS,
applications of LIS to vehicle dispatch systems, road
information systems, synthetic aperture radar (SAR)
image analysis, thematic mapper (TM) feature
extraction, SAR feature extraction.

Student enrollment

The total undergraduate and graduate enrollment in
the Department is more than 100.

Research funding

Annual support from external sources (NSERC, federal
government, provincial government and industry) for
the Department is now more than \$525,000.

Equipment

In addition to extensive equipment available to the
campus community and the Department's geodetic,
engineering measurement and photogrammetric
equipment, the Department has its own GIS/RS
equipment:

VAX 11/750 system of computer and peripherals.

PAMAP GIS software.

In-house RS software.

Various advanced microcomputers.

Digital imaging equipment.

Automatic vehicle location equipment.

Martin Feuchtwanger

University of Western Ontario Purchases RS Image Analysis System

The Department of Geography at the University of
Western Ontario has recently purchased a remote
sensing digital image analysis system for use in teaching
and research.

The system includes image analysis hardware and
EASI/PACE software, a 386 computer, a Cyber 1600
bpi tape drive and a Tektronix colour inkjet printer.
At the present time, grants and logistical support have
been obtained for research on land use changes at the
rural/urban fringe of London, Ont., land use changes
in southern Alberta, arctic plant communities on
southern Baffin Island, and inventorying and
monitoring musk-ox habitat in the high arctic. Data for
teaching is available for areas in the high arctic,
agriculture in Saskatchewan, rangeland in southern
Alberta, forestry in the Maritimes and British Columbia,
and the urban centres of Toronto and London, Ont.

For further information on the system, please contact:

Dr. Cheryl Pearce,

Department of Geography,
University of Western Ontario,
London, Ontario N6A 5C2
ph. (519) 679-2111 ext 5008

SYRACUSE UNIVERSITY Department of Geography POSITION AVAILABLE

New York, Syracuse 13244-1160. Syracuse University,
Maxwell School of Citizenship and Public Affairs.
Assistant or Associate Professor of Geography. A tenure
track position to begin in September 1989.

GEOGRAPHIC INFORMATION SYSTEMS AND
SPATIAL ANALYSIS.

A wide range of teaching and research interests will be
considered, but with special attention to one or more of
the following:

digital cartography

remote sensing image processing

spatial database design and needs assessment
spatial statistics

application of GIS in urban and regional
economic analysis.

Send application, CV and three letters of reference to:

Robert G. Jensen, Chair

Department of Geography,

343 H.B. Crouse Bldg.

Syracuse University,

Syracuse New York 13244-1160

(315) 443-2607/2606

**THE VANCOUVER CONFERENCE ON
EXPLORATION AND DISCOVERY**
Call for papers

Simon Fraser University will host a conference on Exploration and Discovery on April 19-19, 1992 to commemorate the arrival of Captain George Vancouver on the Pacific coast of North America in 1792.

The conference will provide an opportunity for the presentation of new research on social, cultural, economic, scientific, technological and literary aspects of exploration and discovery in the sixteenth, seventeenth and eighteenth centuries, with attention to all parts of the world, but particularly to the North Pacific. Proposals for papers will be accepted up to September 15, 1989.

Those interested in participating should send summaries (100-200 words) of their prospective papers along with a brief vitae to:

The Director,
Vancouver Conference,
Department of History,
Simon Fraser University,
Burnaby, British Columbia, V5A 1S6

**HISTORY OF CARTOGRAPHY
INTEREST GROUP**

I would like to invite all members of the Canadian Cartographic Association who are interested in the History of Cartography and Historical Cartography to send in ideas for session topics and/or speakers. Is there a topic or a speaker that we have neglected or missed in the past or appear to be unaware of? Please send suggestions anytime. All suggestions and ideas will be kept on file for the use of the current and future History of Cartography Interest Group Chairpersons.

Margaret Hutchison,
History of Cartography Interest Group Chairperson,
Saskatchewan Archives Board,
University of Regina,
Regina, Saskatchewan S4S 0A2

Ruggles Retirement



The man they call "Papa Ruggles" received a heartfelt sendoff on June 13, 1988 at an occasion marking the retirement of the founder of the Geography Department at Queen's University.

About 100 people attended a celebratory dinner at the faculty club honouring Professor Richard Ruggles. Speeches afterward fondly recalled his accomplishments and exploits. Speakers included former students, current faculty and even the Queen (though her identity is still somewhat in doubt).

A Fellow of both the Royal Geographical Society and the Royal Canadian Geographical Society, Ruggles arrived at Queen's University in 1960 from the University of British Columbia, with a specific mandate to establish the department that he headed until 1969. Now a Professor Emeritus, he continues with his comprehensive study of the role of the Hudson's Bay Company in surveying and mapping the Canadian frontier, while enjoying the lifestyle of his new home in Victoria, B.C.. Within the Department of Geography, his legacy will continue in the form of a permanent fellowship in his name. The award will go to graduating students of high academic standing who have made an outstanding contribution to the department.

Dick Ruggles is a founding member of the Canadian Cartographic Association and has played an active role in the association, including the formulation of the "Ruggles Report" (1981) on the future options for cartography in Canada.

from the Queen's Gazette 28 June 1988

New Title distributed by the
Canadian Cartographic Association
Nouvelle publication distribuée par
l'Association canadienne de cartographie

EXPLORATIONS IN THE HISTORY OF CANADIAN MAPPING A COLLECTION OF ESSAYS

Edited by/

Publié sous la direction de:

Barbara Farrell, Carleton University
Aileen Desbarats, Université d'Ottawa

Ottawa: Association of Canadian Map Libraries and
Archives

1988, 274 pp. \$25.00 soft cover.

Ottawa: Association des carto-thèques et archives
cartographiques canadiennes,
1988 274 pp. \$25.00 broché.

A collection of articles that have appeared over the
years in the Bulletin of the Association of Canadian
Map Libraries.

Un collection d'articles en histoire de la cartographie
du Canada qui on d'abord paru dans le Bulletin de
l'Association des carto-thèques canadiennes.

To order, please contact:

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canadienne de cartographie
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carte, sa date d'expiration et votre
signature sont requis)

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Automation Interest Group Groupe d'Interet en Automatisation DISK LIBRARY ORDER FORM

In the listings below, the last line of each entry lists the computer system for which the programs were written and the cost (generally \$10. per disk). All MS-DOS disks are assumed to require MS-DOS 2.0 or higher. Disks listed with a "P" prefix indicate that their primary content is computer programs, those with a "D" prefix primarily contain data, while those with an "A" prefix are primarily concerned with the presentation of documented algorithms. Lower-case letters after a disk number indicate that more than one disk belongs to the set.

DISK Description

P1 ab A special enhanced version of the program set described in the Dec. 1987 issue of BYTE for programming map projections. Includes source code (Turbo Pascal version 4), executable program (complete with Metawindow driver for virtually any graphics display and a printscreen utility) and three versions of World Data Bank I (the highest resolution version includes political boundaries and consists of 90,000 points). This set is not available from BYTE listings, but only through the authors (Robert Miller and Francis Reddy) or the CCA. This two disk set is distributed in compressed format and requires disks with a capacity of 720k or more for decompression.
MS-DOS \$20. (2 disks)

P2 A single disk version of P1 that only requires 360k disks. Contains all of the same programs but only two versions of World Data Bank I — the low (6,000 points) and medium (15,000 points) resolution versions (neither with political boundaries).
MS-DOS \$10.

P3 A line generalization program contributed by Ron Eastman. The program (distributed in both Turbo Pascal 4.0 source code and as an executable file) generalizes by point selection, low-pass filtering (3 or 5 point), and tolerance band filtering (the Douglas and Peucker technique). Output consists of a new data file in generalized form. Generalization statistics are given at the end. The disk also contains a simple plotting program that allows that lines to be viewed on Hercules, CGA, EGA and VGA monitors
MS-DOS \$10.

In Canada, send orders to:
The Canadian Cartographic Association
Department of Geography
Memorial University of Newfoundland
St. John's, Newfoundland A1B 3X9

P4 An implementation of GKS level Ob written for the DEC Rainbow under CP/M-86. Requires Turbo Pascal version 3 for the DEC Rainbow. The binding follows the naming and syntax conventions of DEC CP/M-86 Dec Rainbow \$10.

D1 Two North American data sets (provincial and state boundaries) contributed by David Douglas. One is projected on a Lambert projection while the other is in the form of an area cartogram equalized for population density (the isodemographic boundaries are those of Eastman, Shields and Nelson). The pair of data sets provides an excellent base for choropleth mapping.

D2 Micro-World Data Bank II level 3. Contains over 26,000 points and describes coastlines, political boundaries, islands, rivers and lakes.
MS-DOS \$35 (for disk set)

D3 abcd
A four disk set of raster GIS layers for Kenya produced by the FAO. Includes district codes, thermal zones, length of the growing period, rainfall pattern, dominant and secondary physiological and geological mapping units, forests, irrigation and cash crop zones, tsetse counts national parks, game reserves and population density. Also includes a module contributed by Ron Eastman to download the data into the IDRISI GIS system. However, the data are stored in ASCII format and can be loaded into any system with a little bit of programming. An excellent teaching set!
MS-DOS \$30 (a four disk special)

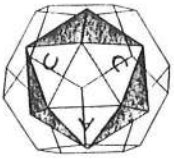
In the US, send orders to:
Prof. J. Ronald Eastman
Graduate School of Geography
Clark University
950 Main Street
Worcester, MA 01610

Name: _____ Institution: _____
Address: _____
City: _____ Prov./State: _____
Postal Code: _____ Country: _____

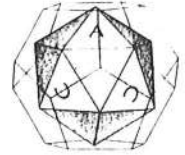
Check disks required:
P1 P2 P3 P4 D1 D2 D3

Total: \$ _____

Make cheques payable to the Canadian Cartographic Association.
U.S. orders may deduct 20% from the final cost if paid in U.S. dollars.



CANADIAN CARTOGRAPHIC ASSOCIATION
ASSOCIATION CANADIENNE DE CARTOGRAPHIE



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TO THE CCA ANNUAL GENERAL MEETING

LOCATION

DATE

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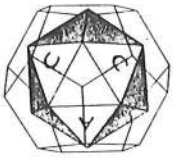
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-- Member of the Executive	___	___
-- Giving a paper	___	___
-- If yes, have you already supplied an abstract	___	___
-- Moderating a session	___	___
-- Attending Executive Meetings	___	___

PLEASE RETURN YOUR APPLICATION BY 20 APRIL AT THE LATEST TO:

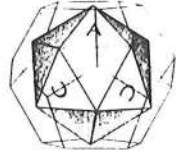
Louis Cardinal, Treasurer
Canadian Cartographic Association
c/o Cartographic and Architectural Archives
Division
National Archives of Canada
Ottawa, Ontario K1A 0N3

Telephone (613) 996-7619

Travel assistance is made possible by a grant from the Social Sciences and Humanities Research Council of Canada (SSHRC); consequently it is only available to members residing in Canada. In certain cases the Association might consider granting small assistance to members residing outside Canada. Only transportation costs are eligible. The grant will be distributed according to criteria already established by the Association.



CANADIAN CARTOGRAPHIC ASSOCIATION
ASSOCIATION CANADIENNE DE CARTOGRAPHIE



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AU VOYAGE AU CONGRÈS ANNUEL DE L'ACC

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DATE

Nom _____

Adresse _____

Téléphone: () _____ (bureau); () _____ (maison)

	Oui	Non
--Etes-vous membre de l'association?	_____	_____
--Etes-vous membre du Conseil d'administration?	_____	_____
--Donnerez-vous une communication au congrès?	_____	_____
--Si oui, avez-vous déjà soumis le résumé de la communication?	_____	_____
--Serez-vous modérateur ou président de séance au congrès?	_____	_____
--Assisterez-vous à une séance du Conseil d'administration?	_____	_____

Prière de retourner votre demande au plus tard le 20 avril à:

Louis Cardinal, Trésorier
Association Canadienne de Cartographie
a/s Cartographie et Architecture
Archives Nationales du Canada
Ottawa, Ontario K1A 0N3

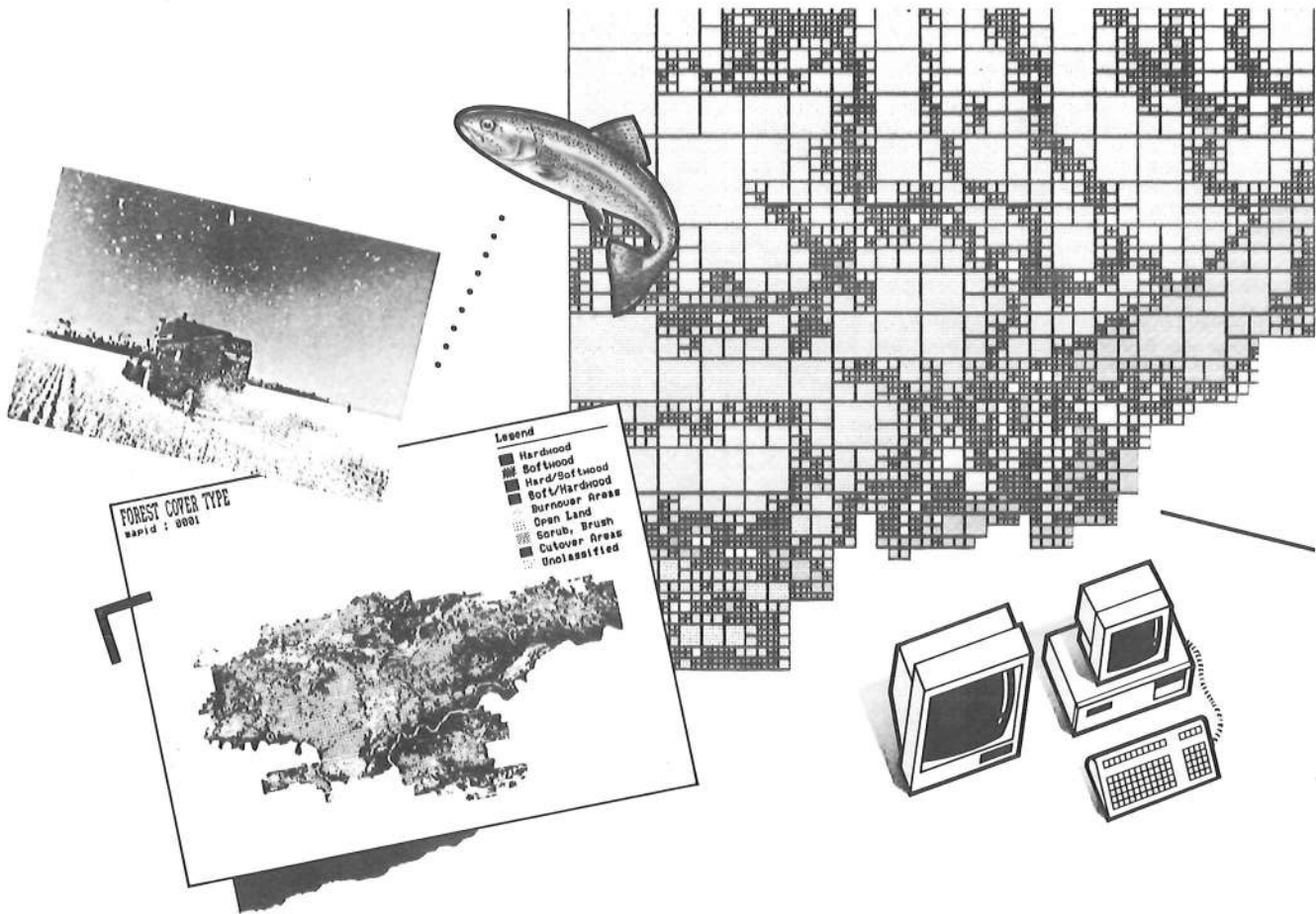
(613) 996-7619

L'aide au voyage provient d'une subvention accordée par le Conseil de recherches en sciences humaines du Canada et est donc accessible uniquement aux membres résidant au Canada. Dans certains cas l'association pourra considérer verser une petite aide à des membres de l'extérieur du Canada. Seuls les frais de transport peuvent être pris en considération aux fins de cette aide.

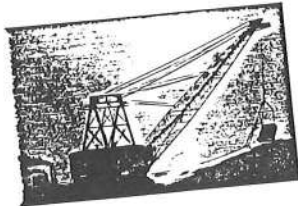
La subvention sera distribuée selon les critères déjà établis par l'association.

Coming Events.....

- 2-7 April 1989** Baltimore, Maryland
American Congress on Surveying and Mapping,
Annual Meeting 1989. "Agenda for the '90's"
Auto-Carto IX
Contact: ACSM,
210 Little Falls St.,
Falls Church, VA. 22046-4392
ph: (703) 241 2446
- 3-5 mai 1989** Sherbrooke, Quebec
Congrès de Carto-Québec
Université de Sherbrooke
Contact: Carto-Québec,
C.P. 8684 Ste-Foy, Québec G1V 4N6
- 31 May-4 June 1989** Chicoutimi, Québec
Annual Conference,
Canadian Association of Geographers
Contact: CAG Office,
McGill University, Dept. of Geography,
805 Sherbrooke St. West, Montreal, Quebec
-
- 6-9 June 1989** Halifax, Nova Scotia
Annual Meeting of the Canadian Cartographic
Association. (Joint with CISM)
Contact: Cliff Wood or Chris Gold,
Department of Geography,
Memorial University of Newfoundland,
St. John's Newfoundland, A1B 3X9
ph: (709) 737 8988
-
- 13-17 June 1989** Regina, Saskatchewan
Association of Canadian Map Libraries and Archives,
23rd Annual Conference, Luther College, University of
Regina.
Contact: Margaret Hutchison
Saskatchewan Archives Board,
University of Regina,
Regina, Saskatchewan S4S 0A2
- 25 June - 1 July 1989** Amsterdam, Leiden, and
The Hague The Netherlands
13th International Conference on the History
of Cartography.
Contact: Organizing Committee for the History of
Cartography Conference,
c/o Jan Werner, Universiteits Bibliotheek
van Amsterdam,
P.O. Box 19185, 1000GD Amsterdam
The Netherlands
- 17-24 August 1989** Budapest, Hungary
14th International Cartographic Conference
of the ICA.
Sessions on a wide variety of themes. For more
information see the notice in the ICA newsletter
included with this issue.
Contact: Cliff Wood, CCA office
- 17-22 September 1989** Cleveland, Ohio
ASPRS-ACSM Fall Convention
Contact: American Congress on Surveying and
Mapping, 210 Little Falls St.
Falls Church, VA. USA22046-4392
- 11 -14 October 1989** Ann Arbor, Michigan
9th Annual Meeting of North American
Cartographic Information Society (NACIS)
Contact: Diana Rivera
University Libraries
Michigan State University
East Lansing, Michigan 48824-1048
(517) 353-4737/4593
- Spring 1990** Victoria, B.C.
Annual Meeting of the Canadian Cartographic
Association.
Contact: Dr. C. Peter Keller,
Dept. of Geography, University of Victoria,
Victoria B.C.
- July 1990** Zurich, Switzerland
4th International Symposium on Spatial Data Handling
Contact: Dr Duane Marble,
Department of Geography,
103 Bricker Hall,
The Ohio State University,
Columbus, Ohio 43210
- 17-19 April 1992** Vancouver, B.C.
Vancouver Conference on Exploration and Discovery
Contact: Conference Director,
Department of History, Simon Fraser University,
Burnaby, B.C. V5A 1S6



So, What's Unique About our GIS?



Everyone knows a picture is worth a thousand words.

It takes a lot of words — or bytes — to store an image. The Forest Cover map above left, for example, would require 819k bytes of space using a traditional raster system.

At TYDAC, we take pride in our GIS innovations. We work efficiently with traditional raster and vector data structures. But we have also implemented a quadtree approach for storing and analyzing images in our Spatial Analysis System. It's called SPANS.

The quadtree structure compresses complex images. That same map, for example, takes only 111k bytes on our system. It's a technical point, but one which has significance for professionals in such fields as planning, environment, fisheries, mining, agriculture, forestry and geo-demographics.

We not only store compressed, we also work compressed. As a result, our system accommodates more maps, more images and more data. And it processes them a lot faster, because there is less to read and write. Uniquely less.

That means, within the same time and space, you can do a lot more analysis. And more modelling. Uniquely more.

To find out more about SPANS, write or telephone. We'll send you a useful information package.

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