

Canadian Cartographic Association
L'Association canadienne de cartographie

Newsletter

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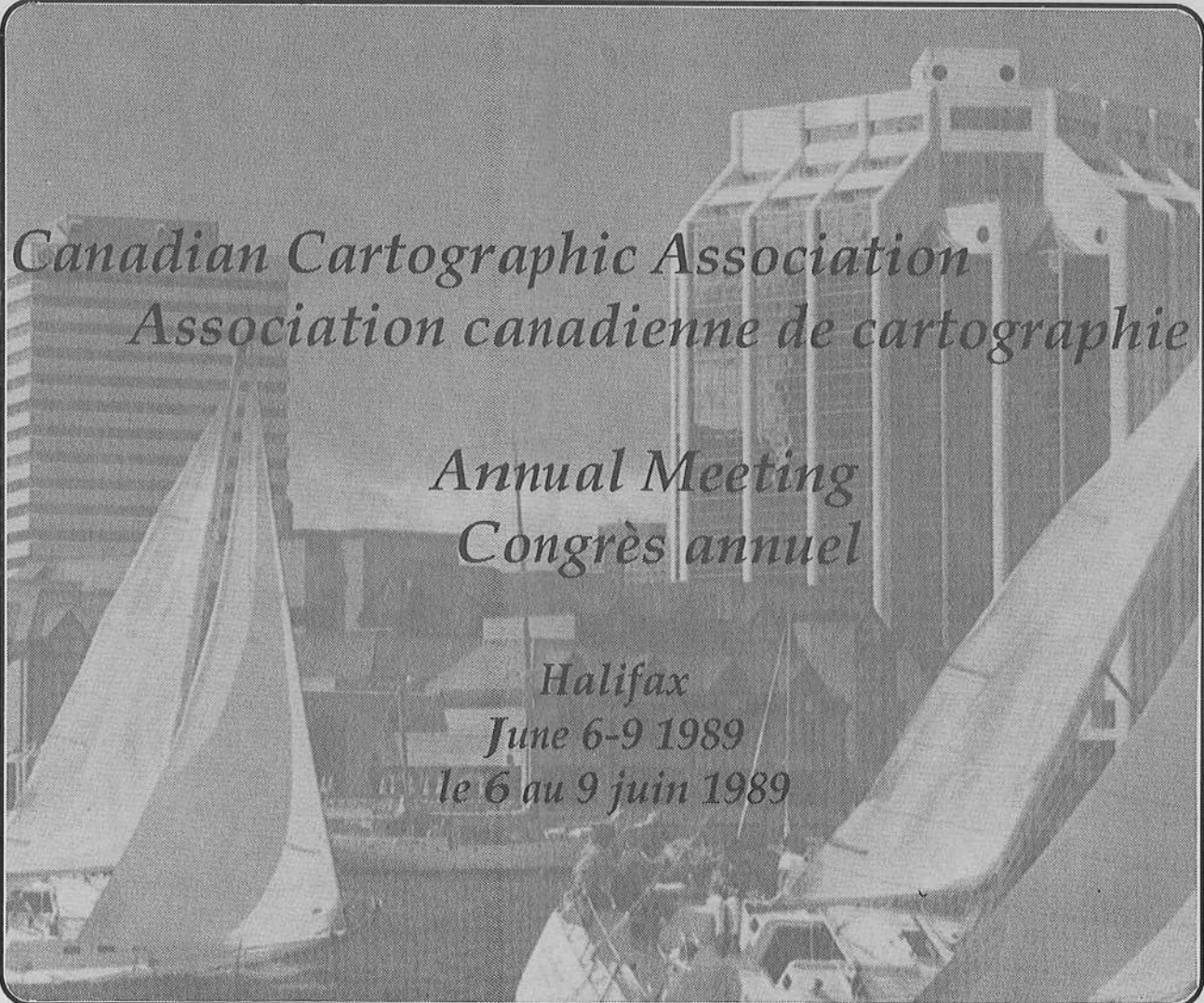
Editor/Rédacteur :

Gordon Shields

Department of Geography

The University of Western Ontario

Volume 15, #1, 1989



*Canadian Cartographic Association
Association canadienne de cartographie*

*Annual Meeting
Congrès annuel*

*Halifax
June 6-9 1989
le 6 au 9 juin 1989*

**CCA OFFICE ADDRESS/
BUREAU CENTRAL DE L'ACC**

Canadian Cartographic Association
Association canadienne de cartographie
c/o Department of Geography
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1988-89

**CCA Executive Committee
Comité exécutif de l'ACC**

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

**Interest Group Chairpersons
Chefs des groupes d'intérêt**

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, #2, 1989) is June 30, 1989.

*We welcome the following new members
to our association/
Bienvenue aux nouveaux membres de l'ACC*

Trevor Bain	Waterloo, Ontario
Djilali Benmouffok	Gloucester, Ontario
Sharon Booth	Oshawa, Ontario
Shelley Connell	Toronto, Ontario
Sharon Daniel	Toronto, Ontario
Ken Francis	Halifax, Nova Scotia
Sonya Hansen	Whitehorse, Yukon
Montine Jordan	New York, New York.
Elizabeth Lambert	Sherbrooke, Quebec
Glen Lamerton	Whitehorse, Yukon
David Lewtas	St. Lazare, Quebec
Alan MacEachern	University Park, Pennsylvania
Roger Mosher	Lawrencetown, Nova Scotia
Stefan Palko	Nepean, Ontario
Darren Viner	Gloucester, Ontario
Anne Marie Watts	St. Catharines, Ontario
DMAHTC	Washington, D.C.
USGS/GCRAS	Rolla, Missouri

Corporate Members

EBSCO/CENIAGY	Springfield, VA.
ESRI Canada Ltd.	Toronto, Ontario
Intergraph Systems ltd.	Calgary, Alberta
J.M. Ellis Ltd.	Metcalfe, 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, Pierre DesMarais Inc.	Kanata, Ontario
Schwerdt GraphicArts. Ltd.	St-Laurent, Quebec
Statistics Canada,	Brampton, Ontario
Stewart, Weir Land Data Inc.	Ottawa, Ontario
Tydac Technologies Inc.	Edmonton, Alberta
Weller Cartographic Services	Ottawa, Ontario
	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 fellow Cartographers,

In early March I had the pleasure of representing you and helping man a display of CCA publications and activities at the GIS National Conference in Ottawa. It gave me the chance to meet many people on your behalf, including old friends and active CCA members who are involved in GIS. These contacts showed the depth and breadth of our involvement in this expanding field. Over 1200 people attended, some of whom are becoming new CCA members. At least three of your present executive and two past presidents presented papers. GIS will be one of the central themes for our Halifax meeting—especially the joint day with CISM. Some of the display, prepared by Gordon Shields, will be at Halifax, too. Plan to participate!!

As you know the AGM will be asked to approve a new schedule of membership fees These are quite reasonable considering today's costs. See details in this Newsletter.

We are pleased to let you know that Roger Wheatformer Newsletter editor and mainstay—has agreed to be the new CCA manager, under terms considerably modified from those of the last two years. A main task will be to keep the membership list up and renewed. We believe that these arrangements will be most efficient and productive for the Association. Your approval at the AGM is requested. See details in this newsletter under the heading of CCA Minutes from February 4-5, 1989

I am sure you will all join me in congratulating Gordon Shields on his excellent work and production of this and recent issues of the Newsletter. He can only continue to do so if you contribute items. Please share your ideas with colleagues through these pages.

Don't forget to cast your ballot (only once) for members of the new executive. Bring a friend to Halifax!!!

Keep your cartography strong.
Sincerely,
Norman Drummond, President

People...People...People...People...People...

Clifford Wood, Memorial University of Newfoundland, has been elected technical councillor on the executive of the Canadian Institute of Surveying and Mapping for the 1988-89 year.

The cartographic team headed by Alun Hughes from Brock University, St. Catherines, Ontario, was the winner of the British Cartographic Society's Design Award in 1988 for "The Great Lakes, an Environmental Atlas and Resource Book".

Interested in Cartographic Professional Affairs?

The Canadian Cartographic Association, now in its second decade, did much to provide a national focus for the cartographic community's interests and concerns. Just to remind ourselves, the association was created to promote the advancement of cartography as a discipline by providing for an exchange of ideas and information through meetings and through publications, to further the understanding and the use of maps as a means of graphic communication, to encourage research in the history and theory of cartography, to advance cartographic education and to seek and disseminate information on new technology. The association has done well with all of its stated objectives.

The association is, however, a learned society and as such is concerned with the well-being of the discipline of cartography and not with that of the discipline's practitioners. It is my feeling that this is the appropriate time to start paying attention to the problems, aspirations and affairs of cartographers, the discipline's practitioners.

The CCA appears to be the most appropriate association within which the initial study, discussion and formulation of objectives concerning the professional affairs of cartographers should take place. To this end, I accepted the post of chairman of a special committee created by the President of the CCA.

The general objectives of initial activities will be to collect and study information on who we are, where we do our thing, how we prepare ourselves for the task, how other professional groups in Canada organize and function, and how cartographers in other countries are organized. Then, having tapped into the collective national cartographers' psyche, formulate plans and recommendations, if appropriate, on how best to proceed toward a national professional cartographer's association.

I am currently contacting people to form a steering committee to help with the initial tasks but I would like to invite all those interested in the topic, and/or willing to contribute information, views and insights, to contact me by phone at (604) 420-2944, by fax (604) 420-2949 or by writing to me at
Canadian Cartographics Ltd.,
106-3680 Bonneville Place, Burnaby, B.C. V3N 4T5

Lou Skoda
Chairman,
President's Committee on Professional Affairs

**Canadian Cartographic
Association**
**L'association canadienne de
cartographie**
**Annual Conference/ Congrès
annuel**
June 6-9, 1989
le 6 au 9 juin 1989

Dear CCA Member,

On behalf of your President, R. Norman Drummond, and the Canadian Cartographic Association '89 Conference Committee, I am pleased to invite you to attend and participate in the joint Canadian Cartographic Association/Canadian Institute of Surveying and Mapping Annual Conference to be held in Halifax, June 6-9, 1989.

This year's technical program is an ambitious one and includes papers, workshops and displays. One of the highlights of the conference is a joint one day session with CISM devoted to papers on Geographic Information Systems. There will be an opportunity for CCA members to visit the sixty plus displays at the CISM exhibit area at the Halifax Sheraton hotel, in addition to our own extensive display areas. Members wishing to display of their own cartographic materials are encouraged to contact me as soon as possible. Display space is limited and will be allocated on a first come-first served basis.

We look forward to seeing you in Halifax in June.

Brad Fay,

Chairman, 1989 Annual Conference.

Cher membre de l'ACC,

Au nom de votre président, R. Norman Drummond et du comité organisateur du congrès de l'ACC '89, c'est avec grand plaisir que je vous invite à participer au congrès annuel de l'Association canadienne de cartographie organisé conjointement avec l'Association canadienne des sciences géodésiques et cartographiques à Halifax du 6 au 9 juin 1989.

Cette année le programme technique est imposant et il inclut des conférences, des ateliers et des exposants. Un des points majeurs de ce congrès annuel sera la journée organisée conjointement avec l'ACSGC et consacrée au Systèmes d'information géographiques. Les membres de l'ACC pourront profiter de cet occasion pour visiter plus de soixante exposants au Sheraton Hotel, en plus de notre salle des exposants. D'ailleurs, les membres désirant monter un kiosque avec leur matériel cartographique sont priés de me contacter le plus rapidement possible.

Au plaisir de vous rencontrer en juin à Halifax.

Brad Fay,

président, Congrès annuel 1989

**Preliminary Program/
Programme préliminaire**

The preliminary program contains only the general themes of both the paper and workshop sessions, except for the joint CCA/CISM session on Thursday for which all papers have been confirmed. The full program will be mailed to all registrants prior to the Annual Conference.

Le programme préliminaire ne contient que les thèmes généraux des conférences et ateliers, sauf pour la session conjointe du jeudi (ACC/ACSGC) où toutes les conférences ont été confirmées. Le programme complet sera envoyé à tous ceux qui se pré-inscriront au congrès annuel.

Tuesday, June 6th/ mardi, le 6 juin

Saint Mary's University / Université Saint-Mary's

10:00 - 15:00 AI-Semiology Group / Groupe de Sémiologie et IA

15:00 - 18:00 CCA Executive Meeting / Réunion de l'exécutif de l'ACC

19:00 - 20:00 Registration / Inscriptions

19:00 - 21:00 Welcoming Ice Breaker / Bienvenue (vin et fromage)

Wednesday, June 7th/ mercredi, le 7 juin

Saint Mary's University / Université Saint-Mary's

8:00 - 9:00 Registration / Inscriptions

9:00 - 9:30 Conference Opening / Conférence d'ouverture

9:30 - 10:30 Session 1/ Séance 1

Papers: Map Use / Conférences: utilisation des cartes

Workshop: GIS Curriculum / Atelier: Formation SIG

11:00 - 12:00 Session 2/ Séance 2

Papers: Automation / Conférences: Automatisation

Workshop / Atelier "Junior Atlas of Newfoundland"

13:30 - 15:00 Session 3/ Séance 3

Papers: Technology / Commercial Systems
Conférences: Technologie / Systèmes commerciales

Workshop: Cartographic Education /
Atelier: Éducation et cartographie

15:30 - 17:00 Session 4/ Séance 4

Papers: Student Papers /
Conférences: Présentations des étudiantes

Workshop: Cartographic Applications on
Macintosh

Atelier: Applications cartographiques sur
Macintosh

18:00 - CISM Maritime Night reception, dinner,
dance /

ACSGC Soirée maritime dîner et soirée
dansante

Thursday, 8th June/ jeudi, le 8 juin

Halifax Sheraton Hotel/ *Hôtel Sheraton de Halifax*
 8:00 - 12:00 **Session 5/ Séance 5**
 GIS & Cartography 8 papers/ 8 conférences
 14:00 - 16:45 **Session 6A/ Séance 6A**
 GIS & Cartography 5 papers/ 5 conférences
 14:00 - 16:45 **Session 6B/ Séance 6B**
 GIS & Cartography 6 papers/ 6 conférences
 17:00 Bus to Saint Mary's University- evening open
Autobus à l'Université Saint-Mary's- soirée libre

Friday, 9th June/ vendredi, le 9 juin

Saint Mary's University/ *Université Saint-Mary's*
 8:30 - 9:00 Registration/ *Inscriptions*
 9:00 - 10:15 **Session 7/ Séance 7**
 Papers: Technology- Micro based systems/
Conférences: Technologie-systèmes sur micro
 Workshop: Object oriented programming and data base systems/
Atelier: La programmation fondée sur l'objet et les systèmes de bases de données
 10:45 - 12:00 CCA Annual General Meeting/ *Assemblée générale de l'ACC*
 12:00 - 14:00 CCA Executive Meeting/ *Réunion de l'exécutif de l'ACC*
 13:30 - 15:00 **Session 8/ Séance 8**
 Papers: History of Cartography/
Conférences: L'histoire de la cartographie
 Workshop: Programming Map Projections/
Atelier: La programmation de projections cartographiques
 15:30 - 17:00 **Session 9/ Séance 9**
 Papers: Interactive atlas design/
Conférences: Conceptions d'atlas interactifs
 Workshop: Manual Technology/
Atelier: Technologie manuelle
 18:30 - Bus leaves St. Mary's for Maritime Fest at Hubbards Beach/
L'autobus quitte St-Mary's pour la Fête maritime à Hubbards Beach

Saturday, 10th June/ samedi, le 10 juin

Optional tours if sufficient interest / *Excursions facultatives si le nombre le justifie*

- College of Geographical Sciences, Lawrencetown, N.S.
- Bluenose II Charter Tour / *Croisière sur le Bluenose II*
- Peggy's Cove Bus Tour / *Excursion à Peggy's Cove*
- Urban Geographer's tour of Halifax / *Tour de "Geographe Urbain" dans Halifax*

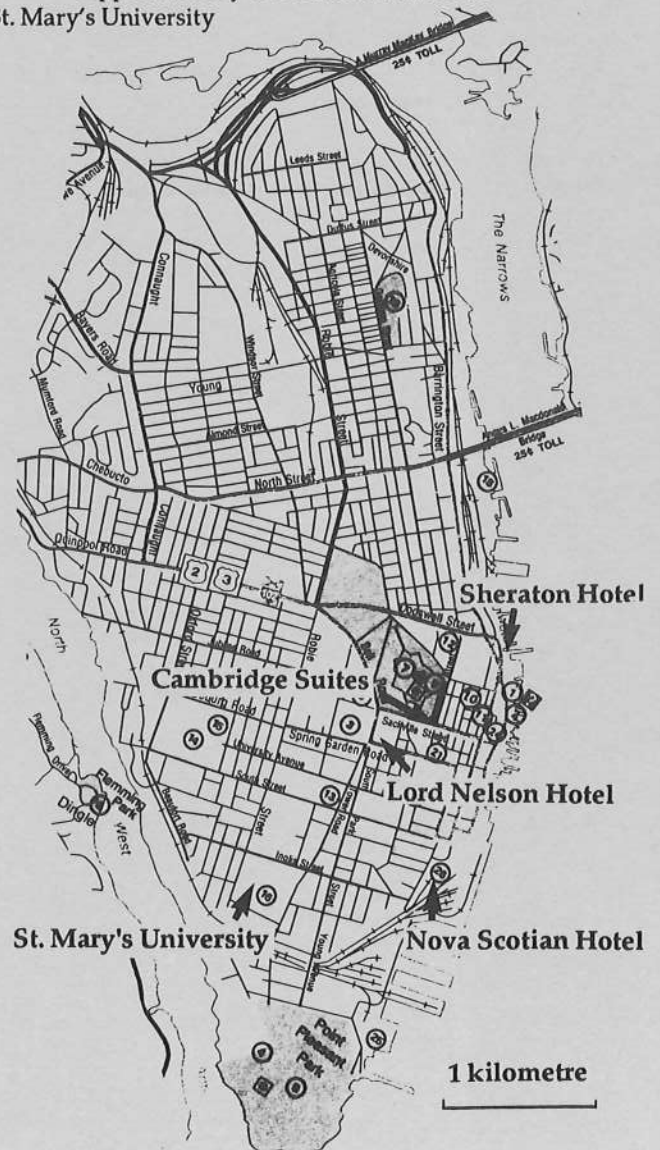
Where to stay in Halifax...other than the St. Mary's residences

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



Abridged Minutes of the meeting of the Executive Committee of the Canadian Cartographic Association
February 4-5, 1989.

Université du Québec à Montréal

Those Present: Louis Cardinal, Jean Carrière, Diana Dacen, Norman Drummond, Ron Eastman, Brad Fay (Organizing Committee, Halifax '89), Chris Gold, Bernard Gutsell, Peter Keller, David Mark, Gordon Shields, Cliff Wood.

N. Drummond opened the meeting on February 4th at 9:15 a.m., welcomed the executive to the meeting at UQAM and thanked Jean Carrière for his offer to host the meeting.

State of the Union

N. Drummond stated that as part of his presidency, he saw the need to develop a liaison with other cartographic associations, and as well to foster closer bonds internally between CCA members. The need for enhanced communication was seen as crucial to our development as an association. N. Drummond then asked for comment from the Executive regarding future objectives of our association. J. Carrière expressed his concern that the objectives of the CCA had to be re-oriented in view of the fact that cartography itself had changed in the years since the founding of the CCA in 1975. If we are to increase beyond the 400 member plateau, the emphasis of the CCA may have to change toward greater regional or decentralized organization, in tandem with closer cooperation with existing regional groups. At present we are reaching only a fraction of our potential members.

R. Eastman proposed a 5 point program to encourage the above mentioned cooperation:

1. Establish a network of regional representatives
2. Establish regional columns in the newsletters
3. Prepare a CCA column for insertion in newsletters of other associations (PICS, Carto Quebec, OICC)
4. Establish a form of associate member in CCA for members already in PICS, OICC, Carto Quebec.)
5. Have each CCA Interest Group chair prepare a column for each newsletter issue.

Treasurer's Report L. Cardinal

The treasurer proposed a revised membership fee schedule in the Treasurer's Report. It was moved by P. Keller that we table the membership fee schedule for discussion later in the meeting, seconded by J. Carrière. Carried. It was suggested by C. Wood that a differential fee for U.S. and foreign members be imposed to offset postage costs.

Manager's Report C. Wood

The Manager delivered his report, noting that renewals were up substantially from the same time last year and in 1987. As manager, he had served as a clearing house for queries on the CCA, represented the CCA in dealings with other professional associations, and achieved control over the membership files.

The pending departure of C. Wood from this post on 30 June 1989 was discussed. The general feeling of the executive was that the position of manager should continue, with some level of funding. The need for continuity with a membership secretary was stressed by Carrière, Eastman, and Drummond. The possibility of separating the secretary and newsletter editor positions was also raised, whereby the secretary would be responsible for membership (or perhaps able to hire someone to assist in this regard).

Moved by P. Keller, seconded by D. Dacen, that we establish an appointed managerial position, with a max annual budget of \$2,000, subject to the approval of the Executive Committee. The budget would provide for equipment, materials, and remuneration for clerical support if necessary. The position would commence at the Halifax meeting and would run for a trial period of 2 years, with duties of the manager to consist primarily of maintaining the membership files and conducting public relations for the association. Carried.

Publications Committee

A publications committee consisting of R. Eastman, C. Gold and P. Keller was struck at the May 29, 1988 meeting of the CCA exec. to establish a policy for the support of occasional publications by the CCA. This committee had no report to make at present.

Sec./Newsletter Editor's Report

The question arose as to whether the CCA could afford to publish 6 Newsletters in 1989. (V.14 #3, 4 + V.15 #1-4). It was decided that we should publish a double issue at some point in 1989 as a cost saving measure. Suggestions for inclusions in a double issue included a list of members, which has not been distributed to the membership for several years.

G. Shields proposed that a network of contributors be arranged on a more formal basis than in the past. Both regional and theme contributors are needed. R. Wheate at Univ. of Calgary has agreed to function as "western correspondent". Other regional correspondents are being sought.

Moved by P. Keller, seconded by R. Eastman that it be the duty of each Interest Group Chair to submit regular columns to the Newsletter editor for publication commencing with V.15, #1 (1989). Carried.

Also of concern to the Newsletter Editor is the fact that our French language content needs improvement. Someone willing to translate from English to French is needed.

Publications

Cartographica B. Gutsell

B. Gutsell reported that #4, 1988 will be out in 6 weeks. Cartographica #1, 1989 will consist of a series of papers on generalization, edited by Robert McMaster.

Disk Library R. Eastman

R. Eastman reported that the disk library needs contributions of software to keep it viable. No special standards on software have been imposed.

Adjourned for the evening 7 pm.

Reconvened Sunday February 5, 1989 at 8:45 am.

Interest Group Reports

It was agreed by the executive committee that the manager should distribute lists to relevant chairpersons, consisting of all members who identified their interest in a particular Interest Group as level 1 or 2.

- **History** - M. Hutchison (in absentia). N. Drummond reported that M. Hutchison is planning a session at the Halifax meeting with potentially 4 paper presentations.
- **Design/Map Use** - D. Dacen Nagel -will be contributing a column to the newsletters
- **Education** - P. Keller - will contact H. Castner (Queen's) re: a session on teaching cartography; will approach J. Anderson (Concordia) re: some participation resulting from her questionnaire on teaching cartography, GIS and remote sensing in Canada; organize a teaching software competition for Halifax; organize a student paper competition again this year, despite last year's apparent lack of interest. It was decided by the Executive that we offer free registration at the conference to the first 5 students whose papers are accepted for presentation.
- **Technology** - D. Mark - expressed concern over the labelling of interest groups with an apparent overlap of interests between automation and technology IGs. It was moved by C.Gold, seconded by D.Mark that the Technology IG be renamed "Production Technology Interest Group" to take effect with the Halifax meeting at which a new IG chair will be elected. Carried.
- **Automation** - R. Eastman - Moved by Carrière, seconded by Eastman that the Automation Interest Group be renamed "Computer-Assisted Mapping/GIS Interest Group" to take effect immediately. Carried. R. Eastman is assembling additional disk library materials. At present about \$750 worth of software has been sold. Programs, algorithms or data sets are welcome as contributions to the disk library.

Proposed Fee Structure

Moved by R. Eastman, seconded by P.Keller, that we recommend to the membership at the Halifax AGM that we institute a category of associate member of the CCA with associate members to be full members in good standing of another approved Canadian association. Associate members would have no voting rights, no ability to stand for office, and would not receive Cartographica. Carried.

Moved by R. Eastman, seconded by P. Keller, that individuals from the following groups be accorded associate membership, should they wish: PICS, ACMLA, Carto- Quebec, CISM, OICC . Carried.

Moved by J. Carrière, seconded by L. Cardinal that we propose the following fee schedule to the membership at the AGM for their decision by vote.

Full member	\$70
Assoc. member	\$40
Student member	\$35
Retired member	\$40
Family member	\$85
Institutional member	\$80
Corporate member	\$175
Honorary member	\$0

Additional rate to be applied - U.S. member + \$5 to above
Foreign member + \$10 to above

Carried.

Submitted
Gordon Shields
Secretary - CCA

DATELINE: THE ATLANTIC EDGE

At Memorial University of Newfoundland, a new emphasis is being placed on computer cartography and GIS. Under the tutelage of Chris Gold the GIS program is now into its second very successful year. As a result of this new emphasis, Peter King, a recent graduate, has just accepted a position working with GIS at the Newfoundland Department of Forestry, at Corner Brook.

The ACSM Student Chapter at MUN, under the guidance of Cliff Wood, organized a seminar entitled "Jobs in Cartography" during this past semester. Graduates from the Geography/Cartography program were brought in to discuss their employment experiences. Larry Nolan (EMR, Mineral Development), Sharon Porter and Edward Light (Culture, Recreation and Youth, Parks Division), and David Mercer (MUNCL), related their work experience and how they felt their educational experience has helped them. MUN intends to bring as many cartography students as are willing (or that we can cram into the Department of Geography van) to the AGM.

MUNCL is currently involved in the creation of the "Junior" Atlas of Newfoundland. The project is about to end the first year's concentrated effort. Most of the compilation, content selection, and layout is complete. This April, Cliff Wood, Gary McManus and David Mercer will present a paper at a meeting of the Newfoundland Teachers Association, Special Interest Group on Social Studies in Corner Brook, not only to create interest in the project, but hopefully to gain input from the user group as well.

This is old news, but for any who have not heard, Alvin Simms (Ph.D. candidate at U of C) has traded in his cowboy boots for a pair of goat rubbers. Back in the motherland, between rugby games, Alvin is applying his skills in statistics and GIS to ice scour problems at the Centre for Cold Ocean Research (C-CORE) located at MUN. Calgary's loss is our gain.

The Newfoundland Department of Energy Mines and Resources, Mineral Development Division has just released the GEOLOGY OF THE AVALON PENINSULA, NEWFOUNDLAND, at a scale of 1:250,000 in full colour. Compiled by A.F. King and produced by the Cartographic Section under the supervision of Ken Byrne. The Cartographic Section of EMR has grown into a first class geologic map production facility over the past few years and is still expanding. More on their story next time.

The Council of Maritime Premiers (CMP) has disbanded the Land Registration and Information Service (LRIS), now that most of its original mandate has been attained. Most functions and employees will be transferred to the provinces. Each province will adapt the system to meet its own circumstances. What the future holds for LRIS at Amherst (the old MRMS), or LRIS in Nova Scotia and Prince Edward Island is unknown at the time of this writing.

Following directly on the heels of the CMP decision New Brunswick announced the establishment of the Geographic Information Corporation (GIC) to be headed by Mr. Lawrence Simpson. This new agency will regroup the previous LRIS functions with the New Brunswick Assessment Branch and County Registry Offices to bring all basic governmental LIS under one administration. The New Brunswick Government has also officially decided to adopt the CARIS system for all of its provincial GIS applications.

LRIS and The School for Environmental Studies at Dalhousie University have for the past year been cooperating in the creation of an electronic atlas of the Bay of Fundy/Gulf of Maine/Georges Bank (FMG) marine region. This atlas, part of a project to develop a resource environmental inventory of the FMG region is sponsored by a number of federal, provincial, and industry groups.

This is all for now. Due to limited time, I am certain that a myriad of noteworthy items concerning cartography in Atlantic Canada have been overlooked. If you were one of those who was overlooked, or know of some information that you feel should be relayed to the Canadian cartographic community please contact me.

Gary E. McManus
Department of Geography
Memorial University of Newfoundland
St. Johns, Newfoundland A1C 3X9
phone: (709) 737-8996
fax: (709) 737-4000

**Champlain Institute
ICOIN FORUM
Inland Waters, Coastal and Ocean
Information Network
The Hugh John Flemming Forestry Centre
Fredericton, New Brunswick
June 12-14, 1989**

Final Notice

You are cordially invited to participate in the ICOIN Forum. The Forum has been scheduled (June 12-14), for your convenience, to follow the CCA and CISM conferences which are being held nearby in Halifax from June 6-9, 1989.

The Inland Waters, Coastal and Ocean Information Network (ICOIN) will consist of a national network of interfaced digital and geo-referenced data bases. The ICOIN data bases, primarily resident within federal and provincial departments, would all contain textual, alphanumeric, graphic and in general, all geographically referenced data relating to inland coastal and marine waters. ICOIN will also provide access to similar networks established by other nations.

The program includes speakers from Canada, Australia and the U.S.A. The forum speakers will review all aspects of the ICOIN concept and will address the challenge of implementing the network. The maximum number of participants which we can accommodate is limited to 250.

For further information please contact:
Arnold Kearney or Patricia Scott,
ICOIN Forum Organizing Committee
c/o LRIS P.O. Box 6000,
Fredericton, N.B. E3B 5H1

Tel: (506) 453-2112
FAX: (506) 453-7418

CHRONIQUE DE L'HARFANG DES NEIGES /

The snowy owl chronicle

Par Majella-J. Gauthier

Voici la première d'une série de chroniques destinées à informer la collectivité cartographique des activités et des nouveautés dans le milieu francophone canadien et plus particulièrement au Québec. Chaque contribution au Newsletter de l'ACC va prendre la forme de un ou plusieurs points que je présenterai d'une manière brève. Je sollicite donc dès maintenant la collaboration de mes collègues pour qu'ils puissent les alimenter en nouvelles, en projets et en réalisations.

L'Atlas informatisé de Quito: un outil au service de la gestion et de la planification. Henry R. Godard, qui était de passage à Québec, Chicoutimi et Montréal en mars dernier, a présenté des séminaires sur le sujet. Le géographe Godard, l'un des responsables du projet, a fait part des problèmes de plus en plus préoccupants qui affectent la croissance de la capitale de l'Équateur. C'est dans le cadre de cette situation urbaine qu'est née la demande équatorienne; c'est ainsi que la Mairie de Quito, l'Institut Géographique Militaire, l'Institut Panaméricain de Géographie et d'Histoire et l'Institut Français de Recherche Scientifique pour le Développement en Coopération (ORSTOM) se sont associés pour réaliser cet atlas dont l'objectif prioritaire est la constitution d'une base de données urbaines localisées. L'atlas comprendra une quarantaine de planches réalisées au 1/40 000 environ. Le projet fait partie d'un programme nettement plus vaste permettant de créer pour la fin de 1990 l'embryon d'un observatoire urbain, qui, une fois pris en charge par le pays, deviendrait permanent. Pour plus d'information veuillez contacter l'auteur à l'adresse suivante: Embajada de Francia, Servicio cultural, Casilla 4642-A, Quito, Ecuador.

Le Laboratoire de télédétection et de cartomatique de l'Université du Québec à Chicoutimi vient de faire l'acquisition de deux systèmes d'information géographique fonctionnant sur micro-ordinateurs IBM-compatibles: MAPINFO, un logiciel de type vecteur; et SPANS (Spatial Analysis System), plutôt de type "raster". De plus, il a fait l'acquisition d'un logiciel de dessin à partir de traitement numérique d'images: OCTIMAGE-PLUS, et d'un logiciel de traitement d'images satellites: PCI (Perceptron); ce dernier système est en train d'être installé sur un micro-ordinateur (processeur principal 386) auquel sont rattachés un disque dur de 380 Mg et un lecteur optique pour stocker l'information sur des cartouches de 800 Mg; les traitements sortiront sur un écran de 19 pouces ayant une résolution de 1 024 par 1 024.

Voici maintenant quelques nouvelles de l'Université Laval. Louise Marcotte nous fait part de la parution prochaine de *L'Atlas de la Francophonie: le monde francophone*. C'est un

ouvrage informatisé, présenté sous forme de coffret comprenant trois éléments. Le premier consiste en une planche murale pliée en pochette analysant cinq concepts géographiques de la francophonie: l'évolution historique de la langue française, la répartition des locuteurs ayant la langue française comme langue maternelle et comme langue seconde, le statut juridique du français, et la francophonie comme réalité mondiale. Le deuxième élément consiste en des volets dépliant reprenant en bandes séparées les thèmes de la planche murale; l'élément troisième est un texte d'accompagnement de 24 pages expliquant d'une manière plus élaborée les cinq concepts fondamentaux. C'est un ouvrage préparé par le Groupe de Recherche en Géolinguistique du Département de géographie de l'Université Laval et édité par Les Éditions La Liberté (Sainte-Foy), Les Publications du Québec (Québec) et Frison-Roche (Paris). Il sera disponible à la fin d'avril '89 et le prix de vente n'a pas encore été fixé.

CARTIER: un nouveau logiciel de numérisation au Département de géographie de l'Université Laval. Denis Hébert vient de mettre la dernière touche à un logiciel de numérisation destiné à la cartographie thématique assistée par ordinateur. Son originalité repose sur trois points: il respecte l'organisation topologique du terrain, il numérise les coordonnées terrain, les vrais unités de mesure, en utilisant les projections UTM et MTM et, il exporte les fichiers en coordonnées métriques et géographiques vers plusieurs logiciels de cartographie thématique comme Atlas-Graphics, MapMaker à la fois sur IBM-PC, Macintosh ou ordinateur central. Le logiciel opère dans un environnement Halo '88 (Graphics Kernel System) et est écrit en Turbo Pascal version 4. C'est disponible au Département de géographie au coût de 60\$.

Jean Raveneau et Marc Miller nous informent qu'après *L'Atlas de la Francophonie* paru il y a un an et à la suite de *L'Atlas des mines et des minéraux au Canada* dont une première version a été distribuée récemment, ils continuent à explorer d'autres possibilités de diffusion et de communication de l'information géographique à l'aide du logiciel Hypercard et de nouveaux moyens de même type comme Supercard et d'autres outils d'environnement IBM-PC.

Yves Brousseau a terminé en 1988 une thèse de maîtrise à l'Université Laval de Québec. Dans une première partie il traite du *Micro atlas de la Francophonie nord-américaine* et, dans une seconde partie il traite de la *Cartographie dans la presse quotidienne canadienne-française*.

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Alberta Round-up

by Roger Wheate

University of Lethbridge

The Geography department is in the process of seeking an assistant professor (tenure track) to teach Geography/Cartography. Courses will include introductory/advanced cartography, and developing courses in GIS, remote sensing and computer mapping.

The position will commence on July 1, 1989.

University of Calgary

In the last year, the University has acquired major software packages (microcomputer based). The surveying Engineering Department now has PAMAP's GIS installed on its VAX11/750 as well as an IBM-AT. The Geography Department has PCI of Toronto, EASI/PACE image processing software. The capability exists to transfer files between these two systems.

Land-related Information Systems Group

The Alberta LRIS reports that Provincial digital map files are now available at various scales with varying feature content. These may be acquired on the following formats: magnetic tape, MS DOS, and Apple Macintosh. Scales correspond to provincial mapping at 1:2,000,000, 1:1,000,000, 1:250,000 and 1:20,000. Files contain hydrography, the township grid, highways, administrative boundaries and place names. The two smallest scales comprise the whole province in one file; 1:250,000 involves 50 files. The 1:20,000 scale exists for about half the province and includes DEM files. For further information, contact the Provincial Mapping Section at 427-6467.

The LRIS Network was recently demonstrated to 150 potential users from 12 departments. Its basic building block is the province's ownership or parcel fabric, comprising both titled and Crown land. Information may be accessed by either search by geographic area or by subject. The purpose of the demonstration is to help identify users needs and to extend awareness of the Network capabilities to potential users, many of whom may be unfamiliar with GIS technology.

Roger Wheate

Department of Geography, Univ. of Calgary
tel (403)220-4892 or e-mail Wheate@uncamult.bitnet

GIS/RS course in Saskatchewan

The Advanced Spatial Analysis Laboratory of the University of Regina, the Remote Sensing Division of the Saskatchewan Research Council, and the Extension Division of the University of Saskatchewan will be combining their training skills and facilities this year to offer a series of courses in geographic information systems and remote sensing. A one-week training course in GIS will be taught at the University of Regina in late August 1989. The course will emphasize a hands-on approach and will demonstrate through a series of exercises how GIS can be applied in agriculture, wildlife, and urban and rural municipalities. Integration of remote sensing with GIS will be demonstrated.

Contact:

Dr. David Gauthier, Department of Geography, University of Regina, for further information on the GIS course, and Jeff Whiting, Remote Sensing Division, SRC for details on the remote sensing course.

Report on the National Conference on GIS

A national conference on geographic information systems was held in Ottawa from February 27 to March 3, 1989. The conference, entitled "Challenge for the 1990's", was sponsored by the Canadian Institute of Surveying and Mapping and the Department of Energy, Mines and Resources Canada (EMR). The organizers reported that over 1100 people registered for the week long event. Paper sessions, seminars, tours and an exhibit of GIS products provided the framework. Presented papers focussed on three main areas of interest- management, application and technology.

A paper that generated a great deal of discussion was presented by W.A. Robertson of New Zealand. In the session which dealt with national GIS issues in other countries, he described how a major policy upheaval in government has affected the surveying and mapping community.

Concentration of the value of service, cost recovery, and the use of corporate planning concepts has taken place. The idea of placing government managers on contract and evaluating their performance at the end of an established term was particularly controversial among Ottawa civil servants.

In the same session, Joel Morrison presented a paper dealing with trends and concerns in the application of GIS in the United States. He mentioned the growing trend towards the use of microcomputers in government and industry. The problems he noted included the duplication of digitizing, the lack of training for GIS users, and the "quick and dirty" conversion of data.

Certainly the most entertaining presentation of the week was made by Frank Hegyi of the British Columbia Ministry of Forests. In a paper entitled, "GIS: User Reality versus Vendor Perception", he identified in a humorous way, many of the problems which plague the GIS field.

An issue which is beginning to gain attention in the professions dealing with geographic information systems is that of GIS and the law. Several papers at the conference made reference to the legal problems that can come into play when dealing with computerized geographic information. A criticism heard regarding the conference exhibit area was that it was too small for the size of the conference. However, most of the major vendors in the GIS field in Canada were present to demonstrate their products.

The long awaited system 9 from Wild Heerbrugg Ltd. was on display and attracted a good deal of attention. This demonstration took place on a SUN workstation. These workstations appear to be gaining popularity and have been incorporated into a number of different geographic information systems.

The conference was in general, well organized and, the quality of papers was high. The low attendance from outside Canada, no doubt, reflected the time of year the organizers chose. This is something that should be given consideration if there is a repeat performance in the future. In such a rapidly changing field, such conferences perform an invaluable service by bringing people together. The exchange of ideas and the establishment of a contact network can only improve the effectiveness of GIS in Canada.

Malcolm Brown, Winnipeg, Manitoba
with contributions from Jan Mersey, University of Guelph

Dr. Vince Robinson Appointed Director, Institute for Land Information Management

The Centre for Surveying Science is pleased to announce the recent appointment of Professor Vincent B. Robinson as Director, Institute for Land Information Management (ILIM). ILIM is a new unit of the University of Toronto, located at the Erindale Campus in Mississauga.

Prior to joining the University of Toronto, Dr. Robinson served as associate Professor at the University of Calgary where he held the Alberta Forestry, Lands and Wildlife Professorship in Digital Mapping and Spatial Data Management. Before coming to Canada, he was Associate Professor of Geography at Hunter College, City University of New York.

As Director of ILIM, Dr. Robinson has overall scientific and administrative responsibility for the multidisciplinary research and consulting institute. ILIM will deal with all issues- scientific, technical, social, economic and legal- involved with the management of land related information. Institute activities will include research in land information management; provision of research, development and consultative services to government and industry; collaboration with government and industry in ongoing research programs; provision of retraining and continuing education programs, and the dissemination of information on new developments.

Technical note on Kwik Proof Colour Proofing System

Despite a whole new generation of colour proofing systems which have come into use during the past few years, here at the Map Reproduction Centre at Energy, Mines and Resources, we have continued to use the old Kwik-Proof wipe on system. This has given us the flexibility to mix our own colours (our colour book contains over fifty) and allows us to proof large format work up to 48" by 65".

For us, Kwik Proof "Brightner" has become a very important tool. Brightner is a powerful cleaning agent originally intended to remove background or scumming from a colour proof. However, in removing the scum, the Brightner renders the image very fragile and can in fact damage it unless great care is taken.

We use brightner as part of our wash off stock solution. We mix three ounces of strong ammonia and fifteen ounces of Brightner per gallon of water. When doing a wash-off, we further dilute the stock solution to about 8 ounces to 48 ounces of water. Not only does this solution take care of any background, but, more importantly, it enhances the quality of the image itself. This is because the brightner sharpens the screen dot, fine type etc.. compensating for unevenness and slight over-exposure. This is particularly true of high percentage screens which tend to plug with normal exposure. Since we began to use Brightner, we have significantly reduced the number of remakes and are able to provide a better quality proof.

Don Myrick

Energy, Mines and Resources Canada
contributed by J.M. Ellis Ltd., Metcalfe, Ontario

GEOGRAPHIC INFORMATION SYSTEMS IN HIGHER EDUCATION

*Workshop
Columbus Ohio
June 10-11, 1989*

The Second Workshop on GIS in Higher Education is designed to bring together those individuals with a substantial interest in the teaching of geographic information systems at institutions of higher education.

The meeting is co-sponsored by the Commission on Geographic Information Systems of the International Geographical Union, the Association of American Geographers and by the Department of Geography and the Centre for Mapping of The Ohio State University.

Workshop sessions begin on Saturday June 10 at 8:30 a.m. at the Fawcett Center for Tomorrow of The Ohio State University.

Saturday and Sunday will be devoted to a series of papers, panels and demonstrations. The initial plenary session on Saturday morning will be devoted to an in-depth presentation and discussion of the draft curriculum being proposed by the National Center for Geographic Information and Analysis. Other workshop sessions will provide discussion of recent and forthcoming developments in GIS teaching software, GIS instructional programs at various institutions, etc. We are especially interested in having a number of short reports presented on the latter topic.

Demonstrations of a number of software packages for GIS courses will also be provided. These include OSU Map for the PC (new version 3.0), IDRISI (Clark University), the ROOTS digitizing system (Harvard), GRASS (U.S. Army Corps of Engineers), GIST (the excellent, new GIS tutor for the Mac from Birkbeck College) and most likely others.

Cost

The meeting has been designed to operate on a low budget basis, so registration fees have been set at a nominal level. A three tier fee structure has been set up as follows:

Faculty members or those who are actively engaged in teaching GIS within a university environment	\$80
Graduate students	\$40
All other individuals	\$160

These fees include the cost of lunch both Saturday and Sunday and a copy of the materials from the workshop.

For further information please contact:

GIS Education Committee
Department of Geography
The Ohio State University
190 North Oval Mall
Columbus, Ohio 43210

Call for Papers

4th International Symposium on Spatial Data Handling July 23-27, 1990 Zurich, Switzerland

The 4th International Symposium on Spatial Data Handling will be held at the University of Zurich, Switzerland. As with its predecessors, this interdisciplinary meeting is sponsored by the Commission on Geographic Information Systems of the International Geographical Union and will emphasize research issues rather than applications.

The conference will focus on the following topics:

- Algorithms and data models for applications in computational geometry
spatial knowledge representation
spatial decision analysis
automatic recognition of spatial structures
digital surface modelling
handling and representation of space-time data
cartographic visualization and generalization
- Spatial languages and user interfaces
- System design and architectures for data integration
- Amplified intelligence concepts for spatial data handling
- Spatial data handling approaches for alternative system architectures (neural nets, parallel processing).

The official language of the meeting will be English. The conference will consist of sessions with presentations of approx. 20 minutes; a few selected papers of special merit will be given 30 minutes of time and will be the subject of prepared discussion.

Researchers are invited to submit abstracts of 500-700 words length to the organizing committee no later than October 1, 1989. Abstracts must carry the full name and mailing address of the author(s), and possibly an electronic mail address. The abstracts will be evaluated by an international program committee. Persons submitting abstracts will be notified of the decision of the committee no later than December 15, 1989 and final papers will be required in camera-ready form no later than April 1, 1990. The number of participants to the conference will be restricted; active participants will be given priority.

Abstracts and inquiries should be directed to:

Professor Kurt Brassel
Geographisches Institut Telephone: 0041-1-257 5151
Universitaet Zurich Telefax: 0041-1-257 4004
Winterthurerstrasse 190
e-mail: K505820@CZHRZU1A.bitnet
CH-8057 Zurich, Switzerland

Forestry/ Resource Management GIS Symposium

Over 600 people attended the second annual Symposium for applications of GIS in forestry and resource management, sponsored this year by Reid, Collins and Associates and Forestry Canada. The meeting was very much a vendor/user affair with a series of designated session topics and invited speakers, mostly from industry and government. Session topics included GIS in the forestry sector, administrative issues, implementation, justifying a GIS, data issues, applied GIS technology in the developing world, and GIS in government. There were also workshops on management topics in GIS development, introduction to GIS, artificial intelligence in forestry, and digital remote sensing. A similar symposium will be held at the same time in 1990, again in Vancouver.

International Journal of Geographical Information Systems

The International Journal of Geographical Information Systems was launched in 1987 to a resounding welcome from the GIS community, and has rapidly established itself at the forefront of GIS research and technology.

A majority of the articles from the first volume concern technical and research aspects of GIS. Reviews of progress in individual countries have also been a feature, including both developed and developing countries.

For more information on subscriptions, contact:
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ESRI Canada Limited is pleased to announce the opening of its new office in Vancouver, B.C. This office was established in response to a growing need for support, consulting and associated Geographic Information Systems (GIS) services in western Canada.

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For more information please contact:

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CANADIAN GEOGRAPHICAL DATA SETS

Available from Public Agencies

Compiled by the GIS Working Committee,
Canadian Cartographic Association

Energy, Mines and Resources Canada has a variety of digital topographic data from selected 1:50,000 and 1:250,000 maps, consisting of topographic and elevation (DEM) data sets. The data is currently in unstructured format and will be made available as sample files, to qualified users for pilot projects, at \$140 per tape, in ISIF or IGDS-8 format. Request status map and agreement form from:

Director, Topographic Mapping Division,
Energy, Mines and Resources Canada,
Surveys, Mapping and Remote Sensing,
Canada Centre for Mapping,
615 Booth St., Ottawa, Ontario K1A 0E9.

CARTLIB is a library of computer files of standard census boundaries. Each file includes geostatistical area boundaries and hydrographic features, and can be used with the 1986 census data from the user summary tape series from Statistics Canada. Available on 9 track tape or floppy diskette, in GIMMS, SAS/GRAPH or ARC/INFO format. Files at various scales, from regional to urban are priced at \$150 and up. Write to:

CARTLIB Products Manager,
Statistics Canada, Geocartographics Division,
2-A3 Jean Talon Building,
Tunney's Pasture,
Ottawa, Ontario, K1A 0T6

Environment Canada maintains the National Climatic Archive of paper, micrographic and computer weather records. The computer files contain 130 million records on 260 magnetic tapes going back to the 19th century. For further information, contact:

Environment Canada,
Atmospheric Environment Service,
Canadian Climate Centre,
4905 Dufferin St.
Downsview, Ontario M3H 5T4

Proceedings ...still available International Symposia on Spatial Data Handling Seattle 1986 / Sydney 1988

These symposia, held every other year, have become a primary forum for in-depth, technical discussion of matters relating to Geographical Information System structure and spatial data handling in general. The meetings stress discussion on the latest technology as well as new and unusual applications.

The Canada Lands Data System, now part of the Canadian Wildlife Service, maintains the Canada Geographic Information System and has over 10,000 digital resource maps available to the public at nominal cost. Write to:
Canad Land Data Systems,
Canadian Wildlife Service,
Environment Canada, Conservation and Protection,
Ottawa, Ontario K1A 0H3

The Alberta Provincial 1:20,000 Digital Base Map is more than 50% complete. For each map sheet, a map position file, a map representation file and a DEM file should be available at distribution cost. 1:250,000 and 1:1,000,000 data sets are also available, together with various municipal map files, and provincial photogrammetric data bases, the Alberta Survey Control network and the Alberta Township System co-ordinate file. Write to:

Land Information Services Division,
Alberta Forestry, Lands and Wildlife,
Petroleum Plaza, North Tower,
9945 108 Street,
Edmonton, Alberta T5N 2G6

The Canadian Hydrographic Service can make the 30 to 50 CHS digital chart files available for educational purposes. They are in NTX format and require a USL CARIS system to manipulate. There would be a charge for copying the data. Write to:

G.R. Douglas, Dominion Hydrographer,
Canadian Hydrographic Service, Fisheries and Oceans,
615 Booth Street,
Ottawa, Ontario K1A 0E6

The Ontario Ministry of Natural Resources has three data sets available for educational purposes. One is a digital map of Ontario at 1:2,000,000 containing major hydrography and transportation networks. The second is a DEM for one Ontario Basic Map sheet, and the third is a surveying horizontal control data set. Write to:

Surveys, Mapping and Remote Sensing Branch,
Ontario Ministry of Natural Resources,
90 Sheppard Ave. E.,
North York, Ontario M2N 3A1

For further information on the above, contact:

C.M. Gold,
Department of Geography,
Memorial University of Newfoundland,
St. John's Newfoundland A1B 3X9
or E-mail: CGOLD@MUN.Bitnet

The Sydney proceedings contains, among others, papers on: Modelling Error in Raster-Based Spatial Data, Spatial Data Structures for Modelling Subsurface Features, Calculation of Hydrologically Sound Digital Elevation Models

For more information on contents and price, contact:

Publications Office
IGU Commission on GIS
Department of Geography
The Ohio State University
Columbus, Ohio 43210 USA

The Challenges of Extra-Terrestrial Cartography

Maps made by a Western geographer will help guide the way when a Soviet spacecraft places unmanned probes on one of the moons of Mars this spring.

The Soviet spacecraft is scheduled to go into orbit around Mars this weekend (January 29). It will spend a couple of months preparing to put two landers on the tiny moon of Phobos in late March or early April, says Prof. Philip Stooke, Department of Geography, Faculty of Social Science. (Editor's note: The Phobos 1 spacecraft was lost as a result of a ground controller's error en route to Mars. The Phobos 2 spacecraft operated in Mars orbit for four weeks, taking many images of Mars and Phobos, but it suffered a hardware failure before the landing could be attempted. The Soviet Union is considering repeating the mission in 1992.)

As the spacecraft makes orbital passes of Phobos, scientists in both the Soviet Union and the United States will use Stooke's maps of the Martian moon to help analyze its surface. "They (the United States) have adopted this map for some analytical work they are doing with the Soviets for the mission that is underway right now," said Stooke.

The Americans are providing some cartographic support to the Soviet Union for the Phobos mission. The Jet Propulsion Laboratory of the National Aeronautics and Space Administration (NASA) says Stooke's maps of Phobos are the best available.

Maps have always been an important and useful tool of exploration

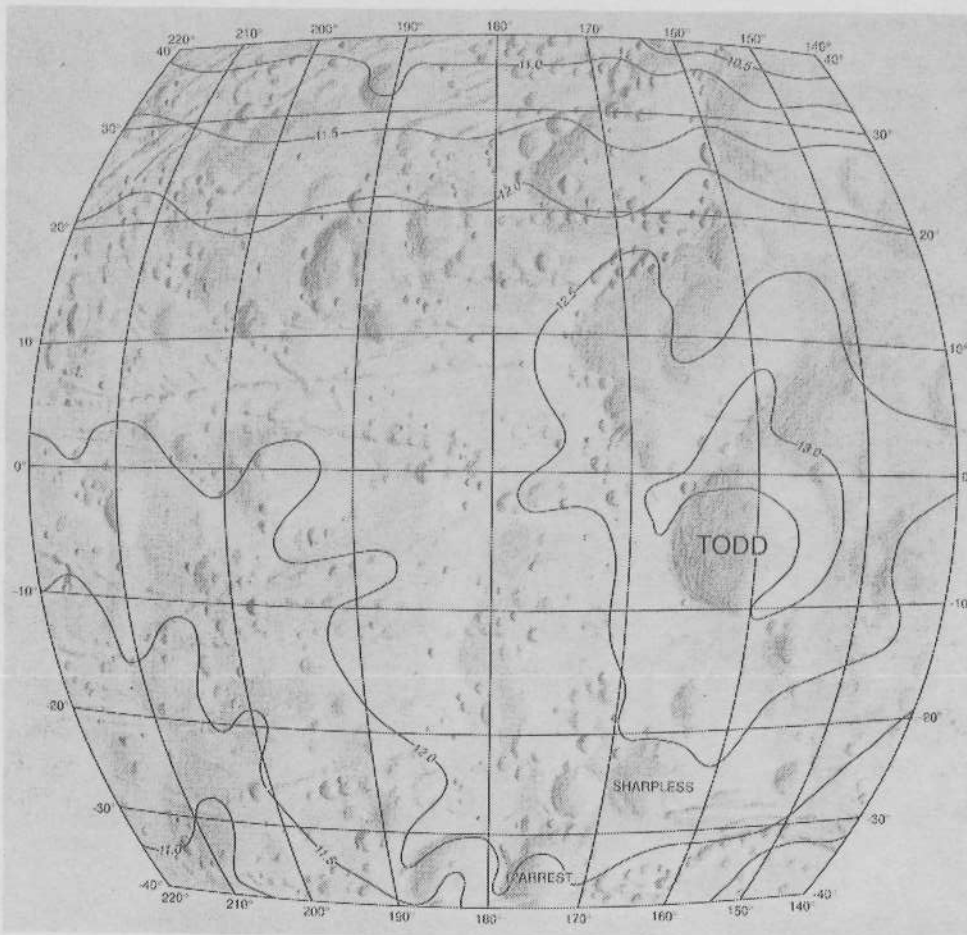
both for planning expeditions and recording discoveries, said Stooke. Extraterrestrial exploration is no exception. But when we look beyond the boundaries of our planet, new challenges arise for the map maker. All map projections are based on the geometry of a sphere. Lines of longitude and latitude form a spherical grid around the planet, and the map maker uses mathematics to project the three-dimensional spherical grid into a two-dimensional map with the least possible distortion of the surface features and their relation to one another.

The methods work for round bodies, such as Earth. (Our planet deviates from a perfect sphere by one half of one percent because of slight flattening at the North and South Poles.) But what about heavenly bodies that are irregularly shaped?

Phobos is shaped like a potato, about one and a half times as long as it is wide, said Stooke. In general, any world less than 400 km in diameter may be irregularly shaped like a giant boulder in space. That is because their mass is insufficient for gravity to collapse them into a sphere. Spacecraft have photographed ten such irregular bodies in the solar system which include Phobos and Demos (Mars' other moon), several moons of Jupiter and Saturn and the nucleus of Halley's comet.

Using conventional methods of map making on these irregular bodies can lead to massive distortions in the finished map, said Stooke.

Stooke first began to develop his technique of map making when he was an undergraduate student at the University of Victoria. He says Phobos was a good candidate for a detailed map because over 100 photographs have been taken of the Martian moon.



Phobos
Region opposite Mars

1988
contour interval 500 m
Approximate elevations
in kilometres above centre of mass,

modified from data
provided by T. Duxbury

Orthographic projection
(morphographic version)

Stooke uses a series of photographs of the body, each showing its surface from a different angle. For each view he starts with a spherical grid which he bends and shapes with a computer to match the contorted shape of the body. "I take a nice sort of spherical longitude-latitude grid and distort it until it matches the picture," he said. After doing this for a series of pictures — a minimum of ten to 12 are needed — he ends up with a longitude-latitude grid that represents the bulges and dents of the irregular body. "It's sort of a computer sculpturing method," said Stooke. "I take the grid and mold it to fit."

In the second stage in making maps, mathematical calculations "fold out or unwrap" the three-dimensional grid to a two-dimensional map projection. Having molded his irregular grid, Stooke produces much less distortion in that second second stage. "The concept is the same as a terrestrial map but applied to a very irregular shape."

NASA, through a contract with the U.S. Geological Survey, is now using Stooke's methods to develop a more detailed map of Phobos based on a photomosaic. That map, however, will not be ready for the current Soviet mission, so Stooke's original map is being used. However, these older maps were constructed using an early version of the projection method and a very preliminary model of the shape of Phobos. Both elements have since been improved, the projection by Stooke for his doctoral dissertation, and the shape by Dr. Thomas Duxbury of NASA's Jet Propulsion Laboratory in Pasadena, California. In December 1988 Stooke combined these efforts to produce a new map of Phobos, reproduced here. The map

shows the region opposite Mars, equivalent to the centre of the far side of Earth's Moon. This is the region in which the soviet Phobos 2 spacecraft will attempt to drop its landing vehicles in April 1989. Beyond Phobos, Stooke's next mapping project will be of the surface of the nucleus of Halley's Comet that was photographed in 1987. Until now there have been problems judging what the top and bottom of the irregular core were in order to superimpose a longitude-latitude grid on it.

"There was a great deal of confusion of how the nucleus of Comet Halley rotates," said Stooke. But recent discoveries have shown an axis of rotation to which a superimposed grid can be anchored.

Stooke will join an international effort to analyse images of the nucleus taken by Soviet and European spacecraft in 1986. Working with Dr. Alain Abergel of CNRS, the French space agency, he will use a set of Soviet low resolution images to model the shape of the nucleus. When the overall shape is known, smaller topographic features seen in pictures from the European Space Agency's GIOTTO spacecraft can be positioned on the map. Finally, active vents from which gas and dust blow into space can be mapped from spacecraft and telescopic data.

For a survey of the cartographic history of Phobos, see the April 1989 issue of *Sky and Telescope*. Philip Stooke is also interested in the history of lunar and planetary cartography, and is currently designing a computer database for his research collection of about 2000 maps of other worlds.

By John Sloan, Western News. Reprinted with minor changes from Western News, Univ. of Western Ontario

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❖ Contact:

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

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

NACIS ANNUAL MEETING 1989

The North American Cartographic Information Society (NACIS) will hold its ninth annual meeting at the Ann Arbor Inn in Ann Arbor, Michigan October 11-14, 1989.

The theme of this year's meeting is "New Perspectives". The program will include such topics as cartographic activities in Canada and Latin America, cartographic education, cartographic laboratories, mapping of water resources, cartography and the media, cartographic software, geological mapping, geographic information systems, navigation, atlases and map library technology. There will be a mixture of contributed papers, keynote speakers, invited papers, panel discussions, poster displays, exhibits, workshops and field trips.

The deadline for submitting abstracts is May 15, 1989. For program and registration information, contact Diana Rivera, NACIS Program Chair, University Libraries, Michigan State University, East Lansing, Michigan 48824-1048. Phone: (517) 353-4593

...at the National Archives of Canada ...aux Archives nationales du Canada

In early January, the Cartographic and Architectural Archives Division of the National Archives of Canada mounted an exhibit of World War I trench maps, entitled: "Maps from the Western Front: 1914-1918". The eleven maps in the display document the wide range of cartographic items produced by the British and Canadian forces for the western front.

The exhibit will be on display until late Spring, from 8:30 am to 5:30 pm, Monday to Friday, in the 4th floor exhibit area of the National Archives of Canada, 395 Wellington Street, Ottawa.

For further information, please contact Louis Cardinal, Chief, Collections Section, Cartographic and Architectural Archives Division, National Archives of Canada. (613) 996-7619.

L'exposition "Cartes du front occidental, 1914-1918" est en montre depuis le début de janvier aux Archives nationales du Canada. Organisée par la division des archives cartographiques et architecturales cet exposition de onze cartes de tranché illustre la gamme des cartes du front occidental produit par les forces britanniques et canadiennes. On peut voir l'exposition jusqu'à la fin du printemps du lundi au vendredi entre 8h30 et 17h dans le hall du 4e étage des Archives nationales du Canada, 395 Wellington (Ottawa). Pour plus amples renseignements prière de communiquer avec Louis Cardinal, Chef, Section des collections, Division des archives cartographiques et architecturales, Archives nationales du Canada au (613) 996-7619.

TACTUAL MAPPING ACTIVITY IN CANADA

As the newly nominated member for Canada of the I.C.A. Commission on Tactual Mapping and Low Vision Mapping, I am seeking to complete a mailing list of those in Canada involved in research in this area, plus the details of any past of current projects.

For my part, I can make sure that you receive information on the work of the Commission, plus a copy of the newsletter. Please send information to my address below:

Michael R.C. Coulson
Department of Geography
The University of Calgary
Calgary, Alberta T2N 1N4
E-mail: Coulson@UNCAMULT.BITNET

HAGAR



QUELQUES NOUVELLES PUBLICATIONS

*FRANCOEUR, André, Majella-J. GAUTHIER, Gilles-H. LEMIEUX et René VERREAULT, Devis de réaménagement des bleuétières de la Sagamie.

Université du Québec à Chicoutimi, Groupe de recherche sur les bleuétières de la Sagamie, 1987, 21 rapports de 50 pages en moyenne. 100\$ pour la collection.

En effet durant plus de quatre ans des biologistes, de géographes et des physiciens ont travaillé en pluridisciplinarité pour améliorer les rendements et la production des bleuétières commerciales de la région du Lac-Saint-Jean. Il proposent dans ces rapports des recommandations pour une utilisation plus rationnelle des ressources biophysiques tout en élaborant des moyens originaux de lutte contre le gel, en créant un environnement particulier qui favorise la pollinisation, et en misant sur des pratiques agricoles adaptées.

*GAUTHIER, Majelle-J. et Suzanne DESBIENS (sous la direction), La cartographie de l'environnement, Université du Québec à Chicoutimi, Les Laboratoires de géographie, Actes du congrès de l'Association québécoise de cartographie (Carto-Québec) tenu à Chicoutimi les 8 et 9 mai 1986. Janvier 1987, 75 p. 4,00\$.

Cette publication regroupe le texte des communications et le résumé des ateliers présentés lors du congrès. L'environnement dont il est question se réfère au milieu naturel: végétation forestière; écologie en regard de l'aménagement du territoire. Il prend aussi une couleur agricole quand on y traite du réaménagement des bleuétières et la dégradation de la qualité des eaux par les grandes concentrations des élevages de porcs. Il adopte un faciès d'écologie sociale pour étudier la distribution spatiale de la dystrophie myotonique. Enfin, on y présente des exemples de moyens informatisés pour analyser l'environnement.

*DESY, Jean et Jules DUFOUR (sous la direction), Les stress environnementaux au Québec, Université du Québec à Chicoutimi, Les Laboratoires de géographie, Six cartes

monochromes au 1:250 000, pour les régions suivantes:

Bas-Saint-Laurent, Charlevoix, Mauricie-Bois-Francs, Pays-de-l'Érable, Québec, et Sagamie, 1987. 3,00\$ la carte plus 1,00\$ de frais de poste.

Ces cartes permettent de connaître l'état de santé du patrimoine naturel, culturel et historique pour six régions du Québec. Elles ont pour objectif d'inventorier et de cartographier le plus fidèlement possible le maximum de données pertinentes relatives à l'environnement et en particulier les contraintes environnementales et les espaces protégés et à protéger. En plus de montrer l'ampleur des atteintes au milieu, localiser et circonscrire les sites les plus affectés et définir le contexte d'intervention pour une meilleure gestion des ressources. Un texte de 1 000 mots commente chaque carte. Soulignons que ces cartes se sont méritées le prix du Président de l'Association canadienne de cartographie en 1987.

Ces trois publications peuvent être commandées aux Laboratoires de géographie à l'attention de Majella-J. GAUTHIER, Université du Québec à Chicoutimi, Chicoutimi, Québec, Canada G7H 2B1.

*Institut régional de géographie et d'aménagement, "Le Québec: réflexions sur l'espace", Cahiers Nantais, No. 28, 1986, 169 p. 70,00FF.

Depuis une couple d'années, les chercheurs regroupés de l'Unité associée 915 du CNRS des pays de la Loire (Universités d'Angers, du Mans et de Nantes) participent à un projet de recherche commun avec les chercheurs des Universités du Québec à Chicoutimi, Rimouski et Trois-Rivières. Ce projet vise à effectuer des études comparatives sur les problèmes de développement régional: espace dévitalisés, espaces périurbanisés; problèmes démographiques agricoles, d'emplois; et les effets des politiques de décentralisation. Des échanges, qui se sont multipliés de part et d'autre de l'Atlantique, est née l'idée de consacrer un numéro complet (comportant 16 articles) sur le Québec auquel collaborent autant les chercheurs français que québécois. Voilà donc un excellent moyen de se mettre à jour sur la question du développement régional au Québec.

Le numéro est disponible dans les bibliothèques des Universités concernées et peut être commandé auprès de I.G.A.R.U.N., Université de Nantes, B.P. 1025, Nantes 44036, France.

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!

You may have noticed some changes in this issue of the Newsletter. To keep us all better informed, several regional columns have been established.

The following individuals will attempt to cover their respective regions on a regular basis.

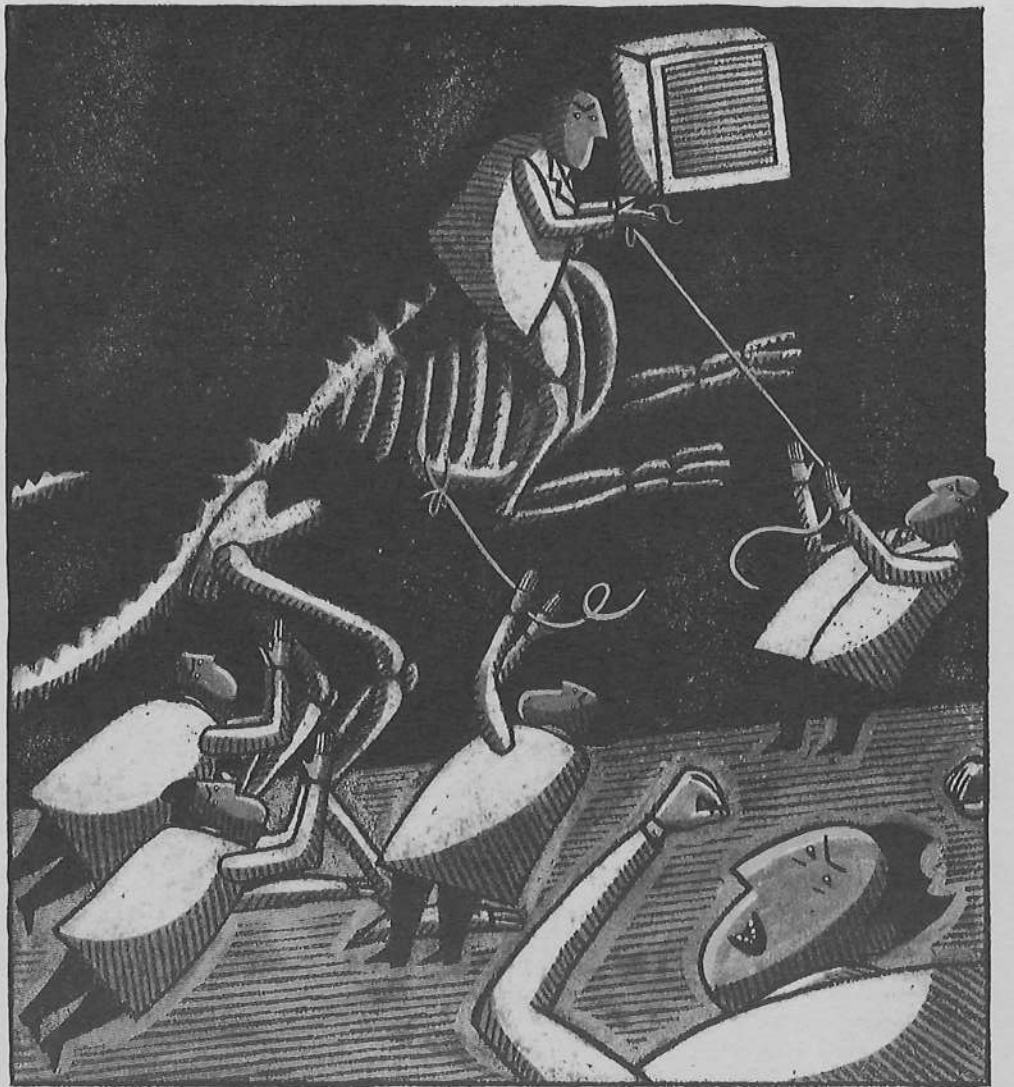
Gary McManus	Atlantic Canada
Majella-J. Gauthier	Québec
Roger Wheate	Alberta

More columns will be started as we get better organized!

Coming Events.....

- 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
- 10-11 June, 1989** Columbus, Ohio
Geographic Information Systems Workshop
The Ohio State University
Contact: GIS Education Meeting
Department of Geography
The Ohio State University
190 North Oval Mall
Columbus, Ohio 43210
- 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
- 25-29 September, 1989** Merida, Venezuela
Second Latin American Conference on GIS Technology
Contact:
Professor Ricardo Ponte
Instituto de Geographia
Universidad de los Andes
Apartado 157
Merida, Edo. Merida
Venezuela
- 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
- 17-19 October, 1989** Madison, Wisconsin
Third Annual Midwest/Great Lakes ARC/INFO User
Conference
Contact:
ARC/INFO User Conference Coordinator,
Wisconsin Geological and Natural History Survey,
3817 Mineral Point Road,
Madison, Wisconsin 53705
tel: (608) 262-1705
- 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

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