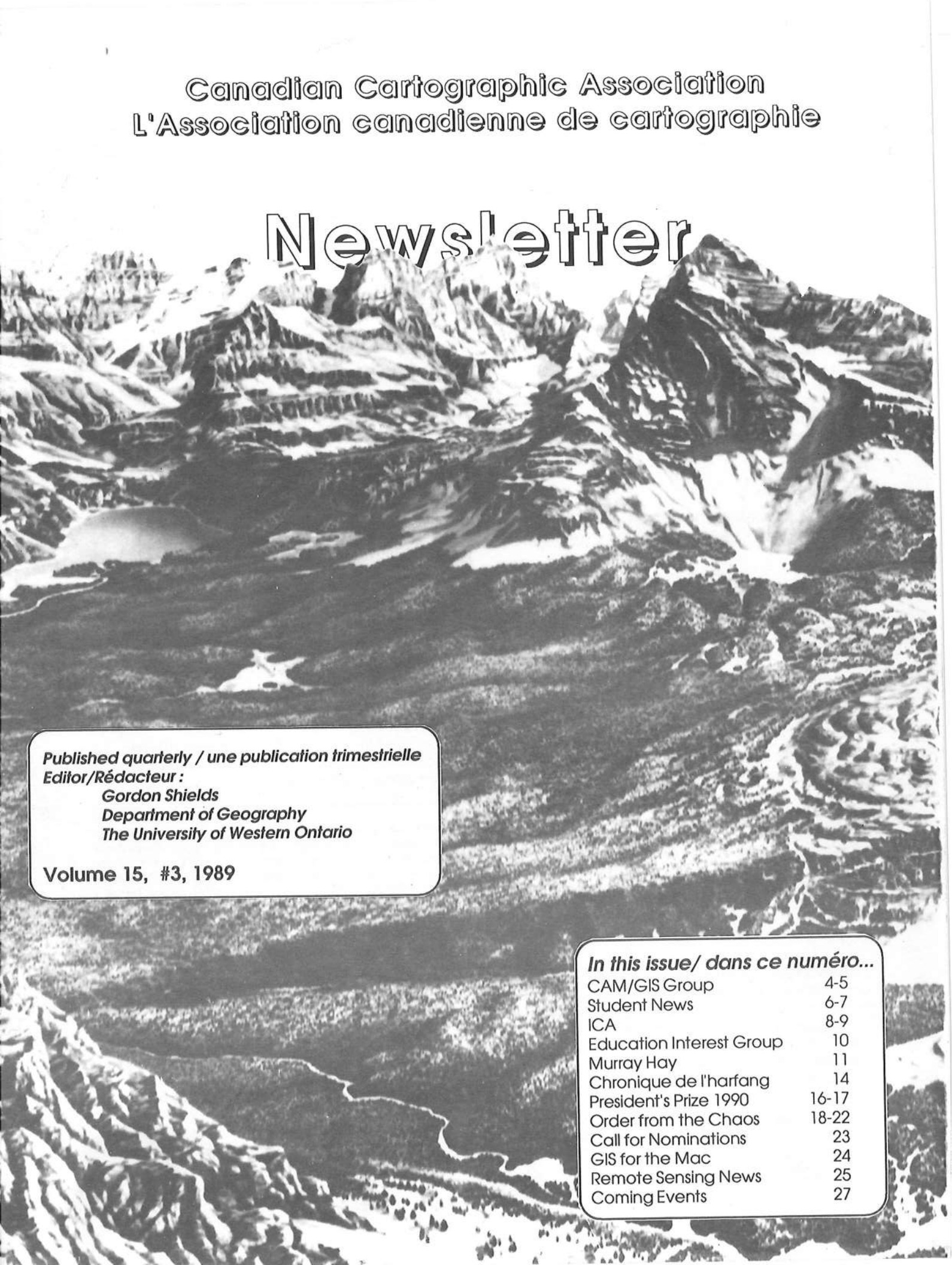
Canadian Cartographic Association
L'Association canadienne de cartographie

Newsletter



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Department of Geography
The University of Western Ontario

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In this issue/ dans ce numéro...

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CCA EXECUTIVE 1989-90
COMITE EXECUTIF DE L'ACC 1989-90

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CHEFS DES GROUPES D'INTERET

Computer-Assisted Cartography/GIS:	J.Ronald Eastman
Education:	Brian Klinkenberg
History of Cartography:	Margaret Hutchison
Map use / Design:	Diana Dacen Nagel
Technology:	Tim Wood

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, #4, 1989) is December 15, 1989.

About the cover:
The cover of this newsletter features a perspective view of the Lake O'Hara area, Yoho National Park, B.C. by Murray Hay, a Calgary based graphic artist.More on Murray Hay's work in this issue.

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

Patrick Dennis	Calgary, AB
Scott Dunsire	Calgary, AB
Steven Garner	Victoria,BC
Nicole Goyette	Montreal, Que
Frank Greif	Calgary, AB
Jim Griffiths	Winnipeg, MAN
Knut Hansstabe	New York, NY
Greg Kovacs	Calgary, AB
Graham Lodwick	Calgary, AB
Robert Lavoie	Blainville, Que
Bill McKenzie	Calgary, AB
Gord McKenzie	Calgary, AB
Matthew Millard	Calgary, AB
Craig White	Brampton, Ont

CORPORATE MEMBERS

EBSCO/CENIAGY	Springfield, VA.
ESRI Canada Ltd.	Toronto, Ontario
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	Kanata,Ontario
Projections Mapping Group	Calgary, Alberta
Schwerdt Graphic Arts Ltd.	Brampton, Ontario
Stanley Associates Engineering Ltd.	Calgary, Alberta
Tydac Technologies Inc.	Ottawa, Ontario
Weller Cartographic Services	Surrey, B.C.

The last issue of this Newsletter managed to go to press with an error in the spelling of Sir Sandford Fleming College. The name of Jo-Anne Froescul, a winning entrant in the President's Prize Competition was also inadvertently misspelled. The editor apologizes for not having caught these errors at the proof stage.

CCA hits the southern century! For the first time (as far as we can tell), the CCA has surpassed the 100 mark in members based in the United States. To commemorate this occasion, a complementary CCA lapel pin was sent to number100, Amanda Tate of Middlebury, Vermont.

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.

•NEW CORPORATE MEMBERS•

PROJECTIONS MAPPING GROUP

The Projections Mapping Group is a software consulting and developing firm, which recognising the developments in the areas of mapping and GIS, opened its doors on June 1, 1989, under the leadership of Bill McKenzie, Gord McKenzie and Gary Thomas, who bring a solid mix of technical knowledge in mapping, database technology, networking, hardware, software development and systems integration solutions.

PMG is a member of the Generation 5 Cartotechnical Group, and thus their specialty is in MunMAP applications. (MunMAP is a GIS package produced by Software Support/G5 Technology of Edmonton, Alberta, in which they have continued involvement and development.) They have a proven record of implementations in such areas as oil field, land, irrigation, municipal management, and environmental concerns.

More information:
Bill/Gord McKenzie, Projections Mapping Group,
Suite 1215 1122 4th St. S.W.,
Calgary, Alberta, T2R 1M1.
Tel: 403–263–3311

STANLEY ASSOCIATES ENGINEERING LTD.

Stanley Associates Engineering Ltd., of Calgary was awarded a contract in May 1989 in a prototype agreement with Energy, Mines and Resources to undertake a pilot project to test the commercial viability of a new type of National Topographic Series map. This is planned to address enhancing the value of existing map inventories with new recreational and cultural components, as well as including provision for updating through the use of a Geographical Information System, incorporation of remote sensing imagery, and the concept of intellectual recreation activities, e.g. viewing geological formations.

An intensive consumer market research phase was completed in September 1989, directed at the domestic level, the United States, and also Pacific Rim and European countries. The generation of value added data will begin in fall/winter 1989/90, with marketing and sale of the new map in late spring 1990. As work proceeds, Stanley Associates will be releasing additional information on relevant aspects of the project to interested persons and groups.

More information:
Frank Greif or Greg Kovacs,
Stanley Associates engineering Ltd., 2633
37th Avenue N.E., Calgary, Alberta, T1Y 5V7.
Tel: 403–291–2100. Fax: 403–250–1308.

CCA Membership rates for 1990

At the Annual General Meeting of the Canadian Cartographic Association in Halifax, June 9, 1989, a motion to raise the membership dues for 1990 was made and passed by those members in attendance. The new rates for 1990 will be:

Full membership	$70
Student membership	$35
Retired membership	$40
Family membership	$85
Institutional membership	$90
Corporate membership	$175
Honorary membership	$0

United States members add $5.00 to the above categories
Overseas members add $10.00 to the above categories

This corrrects the error in the last issue of the newsletter, where the U.S. and overseas complete memberships read $5.00 and $10.00 respectively. To those members who thought that this was too good to be true... well, it was! The editor offers his apologies for any confusion caused.

Greetings to a rejoining member...

Dear CCA membership secretary:

I was a regular member since 1974; unfortunately my CCA dues were not paid for years 1984–89. This has been resulted to remittance restrictions which had been imposed during the war. I feel sure you will understand it was due to circumstances quite beyond my control.

I am writing to ask you to send me the relevant invoice, which is covering back issues of Cartographica and Technical Notes), to submit it to the Central Bank of Iraq.

I do hope the delay has not caused you any inconvenience and hope you will accept my apologies. Let me thank you in advance for your much valued help and co–operation.

Yours faithfully,
Juma A. Al–Wasity,
Head of Cartography Department,
The Establishment of Arab HomeLand Atlas (EAHA)

P.S will be highly appreciated if you could send me the latest CCA Newsletter.

What's in a name?

Dear sir and readers,

Once again we are searching for a new name to replace the bland 'Newsletter' for this fine CCA publication that reaches our doors quarterly. One problem has been that as a national association, it is felt that the name should be equally suitable for both Canada's official languages. This has in the past restricted the search to such generic names as 'Contact' which would be as appropriate for hockey or airline news or a new line of perfume.

Another approach is to seek a 'native' word of cartographic background. In this context, one member suggested the Inuit word for 'map'. According to our northern member, Morrie Portnoff, this is "NUNANNGUAQ", which I feel is worthy of serious consideration. It has a 'ring' to it.

As an alternate, I checked up on the language of the Dene Nation. They unfortunately have no word for 'map' but do have an expression, "DIGEH EDEHTL'EHE", which literally translated means 'Land paper'. This would, I feel also have certain advantages. The CCA would be able to claim not only an almost irreproducible logo, but also a virtually unpronouncable newsletter. This would have great merit at social icebreakers, where an innocent question such as "Have you received the latest issue of "Digeh...." would evoke either hapless mirth or deepest sympathy towards the speaker's futile attempts to complete his sentence. Conversely, any member who could correctly pronounce the newsletter title after several beer, would be asked to leave.

I hope other CCA members will come forward with their opinions and suggestions.

Yours in cartographic earnest,
Rogé LeBlé

OOPS!

The CCA office manager offers his apologies to those members who received a request to renew for 1988, having already done so. This resulted from an errant list from the University of Toronto Press, of non–renewed subscribers to Cartographica. If you have not received the 1989 issues of Cartographica, 1, and 2, please drop me a note at the CCA office address (page 2).
Roger Wheate, CCA office manager.

CAM/GIS Interest Group

Introduction to Pascal

This is the first installment of our programming project in Pascal. In case you missed the notice in the last newsletter, we will be using Pascal as a means of exploring some elementary concepts in automated cartography. Although any version of Pascal should work for the earlier installments, you will need either Turbo Pascal or Microsoft Quick Pascal when we get to the graphic components.

Like most of the high–level "scientific" programming languages, the most fundamental elements of the Pascal language are not much different from what we find on most good calculators. In this installment, therefore, we will look at the fundamental structure of Pascal programs and outline these basic "calculator" capabilities.

Pascal Program Structure I

There are three mandatory elements in a Pascal program — a program header, a main program body delimited by "begin" and "end" statements, and a final period to indicate the end of the program. eg:

```
program sample;                          <— the header

begin
writeln('This is a sample program');     <— the main body
end.                                     <— the end mark (".")
```

Pascal does not distinguish between upper and lower case in its statements, nor does it care about spacing. In fact, since it doesn't even care that all elements of a single statment fall on the same line, it uses the semicolon to separate one statement from the next. For example, the previous program could equally have been written as follows :

```
program  sample;begin writeln
('This is a sample program'); end.
```

Thus in laying out your program, do so for clarity of understanding. It has no significance to the Pascal compiler itself. Statements are commands to the computer. The "writeln" statement above tells the computer to write the line of text "This is a sample program" onto the screen. Notice that literal strings of text like this are enclosed in single quotes.

Compiling Programs

Computers, unfortunately, do not understand Pascal (or any programming language for that matter). Therefore we require a compiler to translate the human logic of Pascal into the native instructional code (a very low–level binary code) of the computer. To do so, we first type the Pascal program using the compiler's built–in EDIT window and then compile the program using the compiler's RUN or COMPILE windows. In either case, our ultimate aim is to produce a compiled executable file with a ".exe" file extension.

Review the introductory chapters of your particular compiler to learn the specifics of how to edit and compile a Pascal program. Then enter the following program and try it out :

```
program add;

uses crt;

var x,y    : real;
    result : integer;

begin

    clrscr;
    writeln('The $3000 Adding Machine');
    write('Enter the first number : ');
    readln(x);

    write('Enter a second number to add to it : ');
    readln(y);

    result:=round(x+y);

    writeln('The rounded result is ',result);

end.
```

Numerical Operators

The "+" sign in the above program is one of a group of simple numeric operators. These are the most fundamental of the "calculator" capabilities. The full set, with examples, is as follows :

```
+      eg. 7+2 yields 9
–      eg. 7–2 yeilds 5
*      eg. 7*2 yields 14
/      eg. 7/2 yields 3.5
div    eg. (7 div 2) yields 3
mod    eg. (7 mod 2) yields 1
```

The first four are obvious. "Div" is the integer division operator — it truncates the fractional part of any division to yield a whole number (an integer). "Mod" is the modulus operator which gives the remainder after an integer division — eg. 2 goes 3 times into 7 (the div result), with 1 left over (the mod result).

Whenever ambiguous combinations of operators are specified, Pascal applies a commonly used set of priorities. First, anything within parentheses is evaluated as a unit. Then the * / div and mod operators have precedence over the + and – operators. Thus

```
writeln(4+5*3);    yields 19 rather than 27. However,
writeln((4+5)*3);  does yield 27 (because of the parentheses).
```

Finally, note that Pascal has no general exponentiation operator.

Functions and Procedures

You will have noticed from the Add program that we can do many more sophistocated operations besides those offered by the simple operators. These are called "functions" and "procedures", and are contained either in the basic Pascal language itself, or in special libraries of such operations called "units". Notice how the program above calls a unit named "crt" that has the "clrscr" (clear screen) procedure.

Functions are language elements that do something and return a result. The "round" function in the Add program is one of these — it rounds the result of any expression to the nearest whole number (integer). Functions usually require an "argument" (the data needed for the operation) that is specified within parentheses.

Procedures are similar to functions, but instead of "returning" a specific result, they do some action. The "writeln" and "readln" procedures are of this nature. For example, the "readln" procedure does the operation of halting the program, waiting for something to be entered at the keyboard, and storing the result in the variable specified. What's a variable?

Variables, Constants and Declaration

Using the calculator analogy, variables can be thought of as memory slots. Unlike a calculator, however, we are not limited to any specific number of memory slots. Rather, we can have as many as we want, of any specified capacity, so long as the total amount of computer resources required does not exceed certain specified limits. With the level of programming we will be concerned with, the limit is 64 kilobytes.

Since we do not start out with pre–specified memory slots, we need to "declare" them before use by giving each a name and specifying the kind of data they will hold (and thus, implicitly, the size required for each). In the Add program, we declared 3 memory slots named "x", "y" and "result".
Notice that these declarations occur outside the main program body in a "var" declaration block (indicated by using the keyword "var").

Variables are given that name because they are memory slots whose contents may change from one time to the next. Values that never change are called constants, and also have a special declaration block (indicated by using the keyword "const"). We can see this in the following illustration :

```
program circle area;

const pi = 3.141592654;

var radius,area : real;

begin
   write('Enter the radius of the circle : ');
   readln(radius);
   area:=pi*sqr(radius);
   writeln('The area is ',area:6:2);
end.
```

Data Types

Notice in the Add and Circle Area programs that some variables were declared to be of type "real" while others were "integer". Integer numbers are whole numbers with no fractional parts (eg, 2 or 3 but not 2.56). Real numbers can have fractional parts (eg. 2.00, 3.00 and 2.56). Real numbers require considerably more computer space to store (typically three times as much) and thus must be declared separately from integer numbers.
Integers and reals are two of the basic data types that Pascal recognizes. The others are byte (a restricted range of integers from 0–255), char (characters), boolean (true / false) and string (groups of characters). Find the discussion in your Pascal users manual about these types and review their memory requirements. Interestingly, Pascal also provides the ability to add new data types of our own design. However, we will not need this feature for a while.

Essential Functions

You will notice in the Circle Area program the use of the SQR() function. Clearly, this squares the argument. Pascal has many such functions and also allows us to define our own specialized ones. However, we will require only a few. Using your Pascal manual, determine what each of the following essential functions does :

sqr()	trunc()	random	ln()	sin()
sqrt()	int()	random()	exp()	cos()
	round()	odd()		arctan()
	frac()			

Essential Procedures

When we start working with graphics, we will use quite a wide range of specialized procedures. However, for now, we need only a very few — all devoted to input and output. These are the following procedures :

writeln	readln
write	read

Run the example programs given here and try to determine the difference between the "write" and "writeln" statements. The difference between "read" and "readln" is similar, although we will almost always use "readln".

Summary

It may seem like you've just scratched the surface with these "calculator" like characteristics. However, you will be pleased to know that you have now learned perhaps half of the keyword elements that we will require from the Pascal language (it is actually quite succinct). But, the really facinating aspects of the language are still to come. In the next installment we will look at control structures — and it is there that you will really feel like your're programming. In the meantime, why not try writing a program that calculates the distance between two points when the user enters their X and Y coordinates. (Distance on the plane is calculated using the Pythagoras' theorum — ie., distances equals the square root of the sum of the squared differences in X and Y.) Later, we will learn how to turn this program into a Pascal function that we can use just as if it were built into the language. Enjoy!

POSITIONS AVAILABLE AT MEMORIAL UNIVERSITY OF NEWFOUNDLAND

Subject to final budgetary approval, the Department of Geography of Memorial University of Newfoundland has three tenure track positions, rank and salary open, beginning 1 July 1990.

1. RESOURCE MANAGEMENT – to teach undergraduate and master's level courses in resource analysis and management, and in related thematic areas, for example, fisheries geography, biogeography, or regional development, or in supporting analytical techniques.

2. GEOGRAPHIC INFORMATION SYSTEMS – to develop and teach courses in GIS and its applications at the undergraduate and master's levels and to join the Department's well–established cartographic unit to develop a GIS research and applications laboratory. Ability to teach introductory cartography will be considered an asset.

3. REMOTE SENSING – to teach courses at the undergraduate and master's level in remote sensing techniques and applications. The position offers the opportunity to join the Department's well–established cartographic unit and to develop a remote sensing research and applications laboratory within the context of a planned Newfoundland Remote Sensing Centre.

In accordance with Canadian immigration requirements, this advertisement is directed in the first instance to Canadian citizens and prmanent residents of Canada, however, other qualified persons are encouraged to apply.

Applications, including a curriculum vitae and the names of three referees, should be sent to Dr. J. D. Jacobs, Head, Department of Geography, Memorial University of Newfoundland, St. John's, Newfoundland, Canada, A1B 3X9. Telephone: (709) 737–7417; Fax: (709) 737–7400.
The closing date is 31 January 1990.

DEMANDE DE PROPOSITIONS CONCOURS D'EXPOSES ETUDIANTS ASSOCIATION CANADIENNE DE CARTOGRAPHIE 1990

L'Association canadienne de cartographie annonce la tenue de son quatrième concours d'exposés étudiants lors de sa rencontre annuelle à l'Université de Victoria en juin 90.

Nous invitons tous les étudiants impliqués dans une recherche reliée à la cartographie à venir partager leurs points de vue et mettre en commun leurs expériences.

Le résumé et l'exposé peuvent être soumis en français ou en anglais. Le temps alloué pour la présentation de l'exposé et la période de questions est de vingt minutes. Un étudiant désirant soumettre un exposé ne doit pas obligatoirement être membre de l'ACC; cependant tout étudiant membre de l'association sera éligible au programme de subvention pour les frais de transport reliés à la rencontre de Victoria.

Il n'y aura aucun frais d'inscription à la conférence pour les cinq premiers exposés retenus.

Veuillez faire parvenir les résumés (200-300mots) avec vos noms, adresse, le titre ainsi que le nom de votre professeur à:

Dr. Brian Klinkenberg,
CCA Education Interest Group Chairperson,
Department of Geography,
University of British Columbia,
1984 West Mall,
Vancouver, BC, V6T 1W5

Date limite pour les résumés: 30 avril 1990
Date limite pour les exposés: 31 mai 1990

Call for Papers Student Paper Competition Canadian Cartographic Association

1990

The Canadian Cartographic Association is pleased to announce the fourth annual student paper competition to be held during the annual meeting at the University of Victoria, June 10-13 1990.

All students involved in research relating to cartography are invited to present their research in a formal paper session.

The abstract and paper may be submitted in either English or French. Each presentation, including a short question period, will be 20 minutes maximum.

Students who wish to present a paper need not be members of the CCA, however, all student members of the CCA who participate will be eligible to make a claim for possible subsidy of their fares to and from the Victoria meeting.

Registration fees will be waived for the first five papers received.

Please send your resume (200-300 words) with your name, address and the name of your professor/instructor to:

Dr. Brian Klinkenberg,
CCA Education Interest Group Chairperson,
Department of Geography,
University of British Columbia,
1984 West Mall,
Vancouver, BC, V6T 1W5

Last date for receipt of abstract: 30 April 1990
Last date for receipt of paper: 31 May 1990

Norman L. Nicholson Scholarship in Cartography

The Canadian Cartographic Association is proud to offer the Norman L. Nicholson Scholarship in Cartography in honour of our late colleague. This scholarship, valued initially at $500, is awarded annually by the Canadian Cartographic Association. It is intended to recognize and encourage exceptional student achievement and ability in any aspect of cartography.

To qualify, the applicant must be:

1. A Canadian citizen or landed immigrant
2. a student who proposes to continue full time studies in cartography in one of the following situations:
   a) entering the final year of a community college or CEGEP program;
   b)entering the final year of an undergraduate honours program;
   c) entering the first year of a graduate program.

To apply, the applicant must submit the following:

1. A completed application form;
2. An official transcript of all college/university courses completed and grades received.
3. Letters of recommendation from two faculty members who are familiar with the work and abilities of the applicant. Letters must be sent **directly by the faculty members** to the Awards Committee.;
4. A one-page typed statement outlining the applicant's goals for continuing education in cartography.

All materials must be received by the Awards Committee no later the March 15, 1990.

Persons wishing to apply may request an application form by calling Roger Wheate, CCA Manager at (403) 220-4892 or writing:

Awards Committee- Canadian Cartographic Association
c/o Roger Wheate
Department of Geography,
University of Calgary,
Calgary, Alberta, T2N 1N4

DEMANDE D'EXPOSES
9e ASSEMBLEE GENERALE ET 15e CONFERENCE INTERNATIONALE DE L'ASSOCIATION CARTOGRAPHIQUE INTERNATIONALE (ACI)

Bournemouth, Angleterre
23 septembre - 1er octobre 1991

Le Comité national canadien pour l'ACI vous invite à soumettre des résumés pour la 15e Conférence internationale de l'ACI. La thématique de la Conférence est la "Cartographie des nations". Les thèmes retenus sont:

-Systèmes experts cartographiques
-Cours et formation de cartographie et Systèmes d'informations géographiques (SIG)
-Technologie des Systèmes d'informations géographiques: gestion des bureaux nationaux de cartographie
-La conception graphique dans l'environnement cartographique informatique
-Histoire de la cartographie
-Cartes pour handicapés
-Cartographie marine: l'impact de ECDIS
-Données et cartes topographiques marketing
-Atlas nationaux: sources, conception et utilisation
-Les organisations cartographiques nationales dans les années 90
-La télémesure pour les cartes thématiques
-Progrès de la recherche en matière de techniques analytiques de Systèmes d'informations géographiques
-Développement des bases de données cartographiques numériques globales
-Utilisation des cartes et des données spatiales

Les auteurs doivent soumettre un résumé en français et enanglais et faire parvenir l'original et trois (3) copies accompagnés d'une courte biographie pour le 1er octobre 1990 à:

Dr. Jean Carrière,
président, Comité pour les exposés canadiens,
Département de géographie, (A-4175)
Université du Québec à Montréal,
C.P. 8888, succursale A
Montréal, Qc H3C 3P8 tel.: (514) 987-3063
Fax: (514) 987-3009

CALL FOR PAPERS
9th GENERAL ASSEMBLY AND 15th INTERNATIONAL CONFERENCE OF THE INTERNATIONAL CARTOGRAPHIC ASSOCIATION (ICA)

Bournemouth, England
23 September - 1 October 1991

The Canadian National Committee for ICA invites the submission of abstracts for consideration by the program committee of the 15th ICA Conference. The theme of the conference is "Mapping the nations". Conference subjects are:

-Cartographic Expert Systems
-Education and training for cartography and GIS
-GIS technology: management issues of national mapping agencies
-Graphic design in the computer mapping environment
-History of Cartography
-Maps for the Handicapped
-Marine Cartography; the impact of ECDIS
-Marketing topographical data and maps
-National atlases: sources, design and use
-National mapping organisations in the 1990s
-Remote sensing for thematic mapping
-Research developments in GIS analytical techniques
-The development of global digital cartographic data bases
-Using maps and spatial data

Authors submitting an abstract must send both an English and French version and should send one (1) original and three (3) copies in each language plus a brief biographic sketch no later than 1 October 1990 to:

Dr. Jean Carrière,
Canadian Papers Committee Chairperson,
Département de géographie, (A-4175)
Université du Québec à Montréal,
C.P. 8888, succursale A
Montréal, Qc H3C 3P8 tel.: (514) 987-3063
Fax: (514) 987-3009

La bourse Norman L. Nicholson en cartographie

L'Association canadienne de cartographie est fière d'offrir la bourse Norman L. Nicholson en cartographie pour honorer cet illustre collègue. Cette bourse, dont la valeur est au départ établie à 500$, est remise annuellement par l'Association canadienne de cartographie dans le bût de reconnaître et d'encourager les étudiants dont les réalisations et les talents sont exceptionnels dans un aspect ou l'autre de la cartographie.

Pour être admissible, un candidat doit être:

1. un citoyen canadien ou émigrant reçu
2. un étudiant qui se propose de poursuivre des études à plein temps en cartographie dans un des cas suivants:

a) entrer dans l'année terminale d'un College communautaire ou de CEGEP.
b)entrer dans l'année terminale d'un programme honneur de premier cycle.
c) avoir été accepté en première année d'un programme d'Études Supérieures.

Pour postuler, il faut soumettre les documents suivants:

1. un formaulaire de demande dûment complété
2. un relevé de notes officiel de tous les cours terminé dans un université ou dans un collège avec les notes reçues.
3. des lettres de recommandation de deux membres du corps enseignant qui connaissent bien le travail et les qualités de l'étudiant. Les lettres de recommandation doivent être expédiées **directement par les enseignants** au Comité des bourses à l'adresse sous-indiquée.
4. un exposé d'une page dactylographiée indiquant vos buts dans le cadre d'études avancées en cartographie.

Les documents doivent parvenir au Comité des bourses le 15 mars 1990 au plus tard.

On peut se procurer un formulaire en appelant le (403) 220-4892 ou en écrivant au

Comité des bourses- Association canadienne de cartographie
a/s Roger Wheate
Département de géographie
University of Calgary,
Calgary, Alberta T2N 1N4

MAPPING THE NATIONS
CARTOGRAPHIE DES NATIONS

15th International Cartographic Conference
15e Conference Cartographique Internationale

SCIENTIFIC PROGRAMME

The Conference theme "Mapping the Nations" has been chosen to mark the bicentenary of Ordnance Survey and to reflect the efforts of the many mapping organizations now in existence. Such mapping is not of course solely topographic, but embraces the sum of all subject matter to be found on maps. The science and technology of communicating all kinds of spatially referenced information, largely in map form is the subject matter of cartography. Commissions and Working Groups of the International Cartographic Association play a major part in the work of the ICA between conferences. Their concerns provide the many sub-themes for our Conference in 1991:

Cartographic Expert Systems
Education and training for cartography and GIS
GIS technology: management issues of national mapping agencies
Graphic design in the computer mapping environment
History of Cartography
Maps for the handicapped
Marine cartography; the impact of ECDIS
Marketing topographical data and maps
National atlases: sources, design and use
National mapping organizations in the 1990s
Remote sensing for thematic maps
Research developments in GIS analytical techniques
The development of global digital cartographic databases
Using maps and spatial data

Papers on any of these topics, or which relate to more than one topic will be sought. All accepted papers will be published in the Proceedings of the 15th International Cartographic Conference, which will be given to all who pay the appropriate registration fee. These proceedings will be available at the beginning of the Conference. Papers will be allocated to Plenary sessions, Parallel sessions with particular themes, or to Poster sessions.

EXHIBITIONS

An International Exhibition of Maps and Atlases from member countries of the ICA will be on display throughout the Conference.

A National Exhibition of Mapping in the United Kingdom organized around a number of different themes will also be on show for the duration of the Conference. Both of these exhibitions will also be open to the general public.

A Technical Exhibition of equipment for mapping products, demonstrating their uses will be held for three days in the Windsor Hall of the Bournemouth International Centre.

Additional exhibitions are being arranged in connection with the bicentenary of Ordnance Survey at the British Library and the Royal Geographical Society, both in London.

TECHNICAL VISITS

On several days parties will visit Ordnance Survey Headquarters in Southampton, 31 miles (50 km) to the east of Bournemouth. It is hoped to provide visits to the headquarters of the Automobile Association at Basingstoke and to the School of Military Survey near Newbury and the Hydrographic Department in Taunton.

EXCURSIONS

Opportunities will be afforded on one day in the middle of the Conference period for all participants to see something of the attractive and historic countryside and towns within easy reach of Bournemouth. Notable are the prehistoric monuments of Stonehenge and Avebury on the chalk downland of Salisbury and Winchester, the Motor Museum at Beaulieu and the New Forest. It will also be very easy to arrange visits to London for shopping combined with exhibitions, galleries and museums. A full programme of activities of interest to accompanying persons will be provided.

OFFICIAL AIRLINE

British Airways are the official carriers for this Conference.

ADVANCE REGISTRATION FORM
FICHE DE PREINSCRIPTION

Please use block letters/Priere d'employer des majuscules

Surname/Nom de famille _____ Title/Titre_____ Given name(s)/Prenom(s)_____

Address/Adresse _____

_____

Country/pays

Institution or Organization/Institution ou Organisation_____

Please write down up to three themes of interest in cartography/ Veuillez indiquer jusqu'a trois themes cartographiques

_____

Accompanying person(s)/Personne(s) accompagnante(s) _____

Tear off and return the form to/ Dechirer et renvoyer la fiche a
Conference Services Limited, Congress House,
55 New Cavendish Street, London W1M 7RE, England

14th INTERNATIONAL CARTOGRAPHIC CONFERENCE
17–24 August 1989
Budapest, Hungary

Delegates to the International Cartographic Association's 14th International Conference in Budapest received a warm welcome from the Hungarian hosts, not to mention the warm, humid weather which was in the mid 30's celsius most of the week. The weather notwithstanding, delegates were treated to a well–organized programme held in the Vigado Conference Hall situated in the heart of Budapest not far from the banks of the Danube River.

On the day prior to the official opening of the ICA conference, the Executive Committees of the ICA, the International Federation of Surveyors (FIG), and the International Society for Photogrammetry and Remote Sensing (ISPRS) met in joint session to discuss the future of the newly created International Union of Surveying and Mapping (IUSM). The meeting resulted in the election of Fraser Taylor as IUSM President. Hugh O'Donnell, Assistant Deputy Minister of the Surveying, Mapping and Remote Sensing Sector of Energy, Mines and Resources, was elected Secretary–General.

Opening ceremonies got underway in the afternoon of the 17th. The days that followed were packed with concurrent sessions on a wide–ranging set of topics. Topics covered in paper sessions included national and regional atlases, agricultural and water resource mapping, tourist mapping, map production technology, education in cartography, and the history of cartography. In addition to the paper sessions, most Commissions and Working Groups were able to hold at least two meetings each.

An international map exhibition held in a wing of the old Buda Castle overlooking the Danube provided delegates and accompanying persons the opportunity to sample many Hunagrian delicacies while renewing acquaintances. On August 20th, delegates were given a break while the nation celebrated Constitution Day. Formula boat races on the river, parades, Hungarians dressed in national costumes, and a dazzling display of fireworks in the evening made for a full day. Other exhibitions held during the week included an exhibit of Hungarian military maps, an exhibit of early maps of Hungary, and a selection of Coronelli globes displayed at the Museum of Applied Arts. Technical visits to various establishments such as the publishing house of Cartographia, the Institute of Geodesy, Cartography and Remote Sensing, the Cartographic Department of Eotvos Lorand University of Sciences, and the Budapest Town Planning Office were also available.

Closing ceremonies were followed by a gala banquet on the 24th. Delegates to Budapest were, I am sure, most impressed by this superbly organized conference.

Clifford Wood

The Canadian Map Display at Budapest

Fisheries Resources the National Atlas of Canada, Department of Energy, Mines and Resources, Ottawa, Ontario.

Native Peoples 1630 the National Atlas of Canada, Department of Energy, Mines and Resources, Ottawa, Ontario.

Length of Day the National Atlas of Canada, Department of Energy, Mines and Resources, Ottawa, Ontario.

Topographic Map–Lembar, Malaysia, Digim, Incorpore, Montreal, Quebec.

Population Density, Geocartographics Division; Statistics Canada, Ottawa, Ontario.

Population Change, Geocartographics Division, Statistics Canada, Ottawa, Ontario.

Population Change, Geocartographics Division, Statistics Canada, Ottawa, Ontario.

North America–Tectonic Elements, Memorial University of Newfoundland Cartographic Laboratory, St. John's.

Sutures and Terrane Boundaries, Memorial University of Newfoundland Cartographic Laboratory, St. John's.

Time of Accretion, Memorial University of Newfoundland Cartographic Laboratory, St. John's.

Miogeoclines and Terrances by Kindred, Memorial University of Newfoundland Cartographic Laboratory, St. John's.

Time of Last Major Deformation, Memorial University of Newfoundland Cartographic Laboratory, St. John's.

Province of Ontario Official Road Map 1988/1989, Ministry of Transportation, Downsview, Ontario.

Coastal Marine Parks of British Columbia, Ministry of Parks, Victoria, British Columbia.

Street Map of Selected Communities, Canadian Cartographics Limited, Burnaby, British Columbia.

Victoria Country Travel Guide, Sir Sanford Fleming College, Lindsay, Ontario.

Newfoundland and the World (Sheet Proof), Memorial University of Newfoundland, St. Johns, Newfoundland.

Biogeoclimatic zones of British Columbia 1988, Ministry of Forests; Canadian Cartographics Limited, British Columbia.

Le Monde, Centre Educatif et Culturel Incorpore, Anjou, Quebec.

La Grande, Carte Regionale, Hydro–Quebec, Montreal, Quebec.

Gulf Fishing Areas, Department of Fisheries and Oceans, New Brunswick; Land Registration and Information Service, Nova Scotia.

Fishing Guide to Nova Scotia, Department of Fisheries; Department of Tourism and Culture; Department of Lands and Forests, Province of Nova Scotia.

The Ottawa Valley, Tapestry Graphics Incorporated, Collingwood, Ontario.

Bathymetry, Continental Margin of Eastern Canada, Canadian Hydrographic Service; Department of Fisheries and Oceans, Ottawa, Ontario.

Approaches to Halifax Harbour, Canadian Hydrographic Service; Department of Fisheries and Oceans, Ottawa, Ontario.

A Particular Map of the American Lakes, Rivers, Etc., University of Western Ontario, London, Ontario.

Vancouver VFR Terminal Area (VTA) Aeronautical Chart, Canada Centre for Mapping; Department of Energy, Mines and Resources, Ottawa, Ontario.

National Topographic Map – Ottawa (Computer Produced), Canada Centre for Mapping; Department of Energy, Mines and Resources, Ottawa, Ontario.

From the desk of the Education Interest Chair...

For the next two years I'll be representing those of you with special interest in cartographic education. In order to adequately represent that interest, response from you is needed—even if its only to criticise! Without your comments the Education Interest Group will simply reflect the current chair's point of view!

One of the matters which falls under the balliwick of the chair of the Education Interest Group is the preparation of special sessions for the upcoming annual conference. One area which is of concern to me is funding cartography courses. Prior to the use of computers in cartography, the year–to–year costs of running a cartography program were relatively minor. However, the advent of computer cartography changed all of that. The purchase of enough computers and associated peripherals in order to run a cart lab is a major expense, and the on–going maintenance costs can also be very costly. Speaking from personal experience, the transition from Leroy sets to PCs has been (and continues to be) a very time–consuming experience. A special workshop on alternative and innovative funding for computer cartography might be a worthwhile session at the next annual meeting. Your thoughts on this and any other potential workshop topic would be greatly appreciated (e–mail: brian@geog.ubc.ca).

It is never too early to start thinking of the various prizes and scholarships offered by the CCA. When assigning labs throughout the year please keep the various competitions in mind. For example, the categories of the President's Prize could form the subject material for a map exercise (e.g., ask your students to prepare a 'journalistic' map using some current affair as the topic). If any of the submissions stand out, you could encourage that student to prepare a formal submission for the competition. It would be nice to see submissions from a wider range of institutions next year.

Brian Klinkenberg

MAINE SITE OF NCGIA NAMED CENTER FOR EXCELLENCE

The Surveying Engineering Department of the University of Maine at Orono, one of the three sites of the National Center for Geographic Information and Analysis, has been designated as a Center for Excellence in Land Information Studies by the international Institute for Land Information (ILI). The UM program is only the second in the United States to be so designated. The Land Information Program at the University of Wisconsin is the other, with two in Australia and one in Canada.

The UM site was chosen because of its combination of strong undergraduate and graduate curricula, multi–disciplinary mix of faculty research interests, and substantial involvement in land information studies.

The Institute of Land Information is a non–profit corporation which seeks to foster the development of improved land information systems, including the creation and adoption of advanced technology for any activity affecting land, such as title transfer, valuation, surveys, mapping, graphic display, information management, indexing, recording, planning and development. Over 30 organizations participate in ILI activities including the American Bar Association, the National Association of Counties, US Census, US Forest Service, the Canadian Department of Energy Mines & Resources, and the Australian Survey Office. One of the goals of the ILI is to coordinate efforts of all levels of business and government in developing coordinated land information systems for such purposes as more equitable taxation, better land development processes and to increase facility and economy in land transfer.

For more information on the ILI and their activities, write to:
Institute for Land Information
440 1st St. NW, 8th Floor
Washington, DC 20001

MAPS ARE IN!!!!!

When National Geographic President Gil Grosvenor expressed worry not long ago that we are turning out a nation of nincompoops where geography is concern, Dan Rather of the CBS "Evening News" apparently was listening.

Rather is toying with the idea of using maps extensively to illustrate stories for an audience in which younger viewers frequently cannot locate the United States on a map of the world.

"Dan has said, again and again, 'Let's use maps to help people understand geography; with the geography problem in this country, what can do this better than television:'" said "Evening News" executive producer Tom Bettag. "So we're playing around with the idea of changing the monitor Dan talks to when he's interviewing a guest into a substantially larger monitor.

"That way, in addition to a guest, we would have the ability to put up a map and say, 'The area in question is here; this is Yellowstone National Park and the fires are burning along this side,' or, 'Here's Africa; Ethiopia and the Sudan are in the eastern part, and here is where (the late Texas congressman) Mickey Leland's plane went down.'

"With that story, you're into Ethiopia, but nobody knows where Ethiopia is," Bettag said. "Some of the new electronic screens are terrific, and Dan could stand in front of one of them and use it as a kind of chalk board. We could make a real contribution."

Bettag said the shift to geographic emphasis still is in the formative stage, but, he added, "We're clearly going to work on the better use of maps to help address the questions 'where are things and where is this story taking place?'"

from The Duluth News-Tribune 2Sept 1989 via Malcolm Brown

CONFERENCE ANNOUNCEMENT

GIS EDUCATION AND TRAINING

Centre for Geography, Department of Geography,
University of Leicester, University Rd, LEICESTER. LE1 7R

Sponsored by AGI, CTICG and RRLs

The Chorley Report of 1987 highlighted a shortage of personnel (in all sectors of the industry) with skills in GIS. It is apparent that higher education is trying hard to respond to this by creating lectureships and courses in the field. In order to do this it is necessary to be aware of educational, conceptual and resource provision issues that affect curriculum design, staffing and delivery. This conference, generously sponsored by the Association for Geographic Information and the recently established Computers in Teaching Initiative Centre for Geography, will address these subjects. Speakers have been invited from AGI and NCGIA and further offers of papers should be sent to DJ Unwin at the address below.

The conference will be held at the Midlands Regional Research Laboratory, University of Leicester, from 20–21 March, 1990. The conference fee will be £80, for academics/researchers, and £120 for others (including proceedings, accommodation and all meals). A second conference on 'GIS Design Models and Functionality' also organized by the MRRL is being held at the same location, from 21–22 March, 1990. The cost of the total package for both conferences is £160 for academics/researchers and £215 for others.

For further details and booking forms contact:

Anna Alexander Williams
Midlands Regional Research Laboratory
Bennett Building
University of Leicester — Tel. 0533–523849
University Road — E–Mail: JANet RRL@UK.AC.LE
Leicester LE1 7RH
UK

MURRAY HAY: MAPPER OF MOUNTAINS

Anyone who has skied in the Canadian Rockies or Coastal Ranges of British Columbia, will be familiar with the work of Murray Hay, although in speeding down black runs, they may not have noticed his calligraphed signature at the bottom of their ski resort maps. Mr. Hay is perhaps best known for his graphic renditions of western ski hills: he has been contracted to portray virtually all of the major resorts, as well as Mont Ste–Anne in the east in the aerial perspective view, desired by ski operators.

Born in 1931 in Regina, Murray worked at all levels in printing shops in western Canada including a two year stint in Australia, before settling in Calgary in 1963. Self employed as a graphic artist from 1966, engaged in designing brochures, book covers and illustrations, he did not render his first ski–hill until 1969 when the Lake Louise resort operators asked him to 'see what he could do'. His first attempt was in his modest view 'a mess', redone many times, but others must have liked what they saw as pretty soon, Whistler Mountain and other downhill resorts were lining up for his talents. That first effort, compiled primarily from ground view photographs, convinced Murray of the need for aerial perspectives either from mountain viewpoints or small aircraft.

Mr. Hay works now from a combination of topographic maps and oblique aerial photographs when possible, taken from a rented light plane for an accurate perspective. The colour terrain depiction is created almost entirely with paint and brush, although he uses air brush for the sky and water. In most cases, he is also responsible for the overlay of symbols and lettering. Each major project takes approximately 6–8 weeks.

Over the last 20 years, there has been little slack time between projects, as his scope has broadened to take in more than ski resort renditions. He produced several images for the promotion of two winter Olympic bids: Calgary's bid for the 1988 Games, and Anchorage, Alaska, for the 1994 Olympics. Murray has also more recently made several maps for Equinox Magazine, ranging from perspective renditions of the Himalayas (relating to the Canadian expedition to climb Mt. Everest) to more conventional map type products of regions overlain with shaded relief, including Pakistan and Baffin Island. Currently he is working on a book for Reader's Digest enitled "By–ways of Canada", which he expects to keep him busy till Christmas 1990.

Murray Hay at work

Even though the Anchorage bid was not successful, only one of Mr. Hay's images was not used by the contracting party: that being a map of the James Bay hydro–electric scheme, where he correctly used the advantage of perspective to enlarge the foreground and depict the northern areas in detail, showing Montreal and southern Quebec in the background. The publishers did not favour the end result because north was not to the top!

As one might expect, Murray is an avid downhill skier, and when the snows have departed, heads for the golf course. These have similarly experienced his brushwork in artistic depictions of planned subdivisions.

Unfortunately, the reproductions shown here do scant justice to the quality of his renditions without being able to print in colour. To see these landscapes come to life, please refer to Equinox, ..., or alternatively, put on your skis and head west!

Roger Wheate

Blackcomb Mountain, British Columbia
with the highest vertical drop of any ski run in North America

Tydac News

SPANS ASSISTS IN ST. LAWRENCE RIVER CLEAN-UP PLAN

TYDAC Technologies of Ottawa today announced that SPANS, its microcomputer- based geographic information system (GIS), has been selected for use in an Environment Canada pilot study under the aegis of the St. Lawrence Centre of Montreal.

The Centre commissioned the State of the Environment (SOE) Reporting Branch of Environment Canada to conduct a GIS study in January 1989 to demonstrate the usefulness of an integrated, cross-sectoral approach in assessing the state of the environment of the St. Lawrence. As a result, SPANS is being used to capture, integrate, model and interpret environmental and socio- economic data such as water quality and use, endangered wildlife species, wildlife habitats, commercial and sport fishing, agricultural practices, population figures and recreational activities to create a single database.

The database and the subsequent development of spatial methodology will then be housed on two additional SPANS systems at the Centre. In turn, this integrated environmental database will help future monitoring efforts, and will be one of the tools used to evaluate the effectiveness of the action plan's programs.

TYDAC AWARDED U.S. NATIONAL WEATHER SERVICE CONTRACT

TYDAC Technologies Inc. of Ottawa today announced that its Arlington, Virginia subsidiary has been awarded a contract to supply the Advanced Hydrologic Observations Groups of the National Weather Service (NWS) with SPANS, TYDAC's PC-based geographic information system (GIS), for its Minneapolis, Minnesota headquarters.

Each year, NWS calculates the snow cover percentage for 1.8 million square kilometers including the Rocky Mountains and the Great Lakes which encompass over 480 U.S. and Canadian drainage basins. By overlaying imagery from the NOAA (National Oceanic and Atmospheric Administration) polar orbiting satellites with watershed boundaries and elevation zones, NWS uses SPANS to calculate the percentage of snow cover and produce maps indicating the geographic location of the snow cover.

NWS distributes these maps along with tabular reports to weather service offices and to public agencies such as soil conservation and irrigation authorities and electricity associations for their use in predicting floods, irrigation requirements and power usage.

TYDAC Technologies specializes in the development of GIS and related applications. TYDAC has offices in Canada, the United States and the United Kingdom, and is a member company of Kinburn Technology Corporation.

NEW PRODUCT INTRODUCED BY PCI AND ARDENT

Toronto, ON, September 7, 1989 – PCI Inc. and Ardent Computer Corp. have introduced the first commercially available image analysis system to interactively manipulate large scenes of satellite image data and display results instantaneously.

Ardent and PCI have ported PCI's EASI/PACE remote sensing image analysis software to Ardent's Titan graphics supercomputer under a joint development project. Ardent now jointly markets the EASI/PACE software with Titan under the firm's Application Alliance Program, and PCI resells Titan to its customers for high-performance image processing applications.

Titan is available in versions with from one to four processing modules priced from $75,000 to $150,000. PCI's EASI/PACE software is also available in modules, with prices starting at $10,000.

For more information, please contact:

Stephen Silverthorn, President, PCI Inc.
50 West Wilmot Street
Richmond Hill, Ontario L4B 1M5
Telephone: (416) 764–0614
Fax: (416) 764–9604

THE METROPOLITAN ATLAS SERIES

This summer, Statistics Canada released 12 volumes of the Metropolitan Atlas Series. Each volume covers a major Census Metropolitan Area (CMA), and displays the results of the 1986 Census of Population and Housing with maps, graphs and explanatory text in a 11" by 17" format (see Figure 1).

The CMAs include: St. John's, Halifax, Quebec, Montreal, Ottawa-Hull, Toronto, Hamilton, Winnipeg, Regina, Calgary, Edmonton and Vancouver.

Each atlas contains 35 colour thematic maps illustrating data at the census tract level, and area about the size of a neighbourhood. The themes in each atlas include: Population Change, Age, Mobility, Education, Immigrants, Ethnic Origin, Families, Housing, Employment, Occupation and Income. The predominant thematic map type is the one-variable choropleth map. A few dot maps and two-variable choropleth maps are also included in the Atlas Series.

The thematic maps in the Atlas Series incorporate a number of striking features. Firstly, the statistical data are displayed only in the inhabited portions of the CMAs. This "population ecumene", or inhabited land concept, permits a more accurate spatial representation of census data. The ecumene was compiled from various sources, including LANDSAT Thematic Mapper satellite imagery.

Secondly, to avoid using insets—yet still allow the data for the small urban census tracts to be displayed—the thematic maps focus on a "window" area that covers a significant portion, but not all, of the CMA. These windows include very large percentages of the CMA's total population, with a dramatic reduction of land area mapped. For example, nearly 97% of Calgary's population is displayed in a window representing only 37% of its total land area.

Thirdly, the traditional legend has been replaced by a "histogram-legend", which simultaneously gives information on the classification of the data, the colour schemes used, and a graphic representation (using proportional bars) of the number of observations per class. Other statistical graphics used in the Atlas Series include bar charts and dot charts which compare the mapped theme to the other 24 CMAs in Canada, and scatter diagrams for the two-variable choropleth maps.

In addition to the thematic maps, each atlas contains a three-colour census tract reference map, containing census tract identification, and labelled street networks and water bodies. Two other reference maps are transparent plastic overlays, depicting census subdivisions (municipalities), and Forward Sortation Areas (areas identified by the first three characters of the postal code).

Each of the five map sections is introduced by explanatory text, describing highlights of the data. Additional information is provided in a comprehensive series of appendices—including topics such as data quality, derivation of map variables, definitions, and an illustrative guide on map use.

The Atlas Series was designed to appeal and be useful to many audiences, such as teachers, professors and students of geography and cartography. The breadth of the census themes chosen, the innovative features found on the thematic maps, and the explanatory text make the Metropolitan Atlas Series an informative and easy-to-use tool.

Each atlas costs $24.00, expect for Montreal and Toronto which cost $30.00 each. Further information on the Metropolitan Atlas Series can be obtained by calling the Geography Division, Statistics Canada at (613) 951-3889 or your local Statistics Canada office.

submitted by Carolyn Weiss

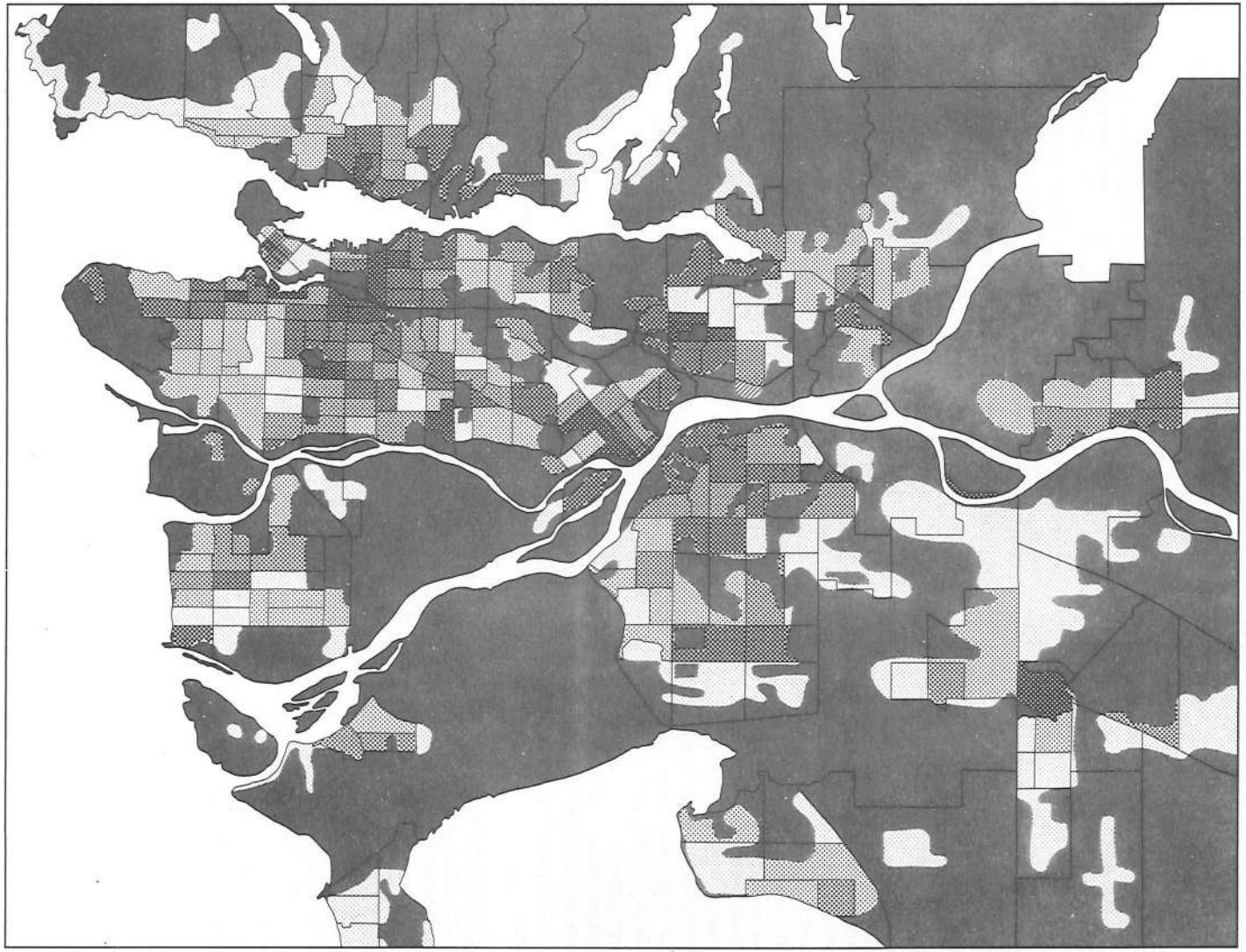
Sample map from the Vancouver atlas. The original map is larger and in colour.

FEMALE LONE-PARENT FAMILIES

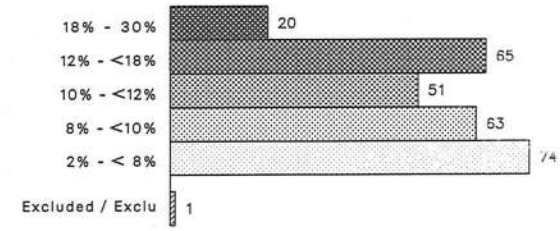
As a percentage of total families in private households

FAMILLES MONOPARENTALES FÉMININES

En pourcentage du nombre total de familles dans les ménages privés

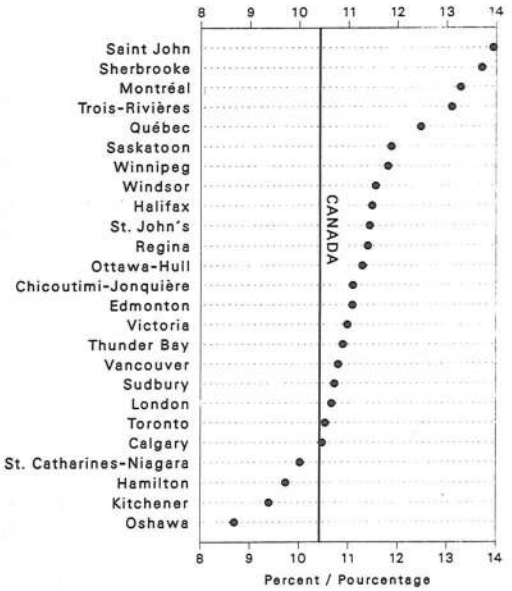


Number of CTs per Class (CMA)
Nombre de SR par classe (RMR)



Non-residential and sparsely populated
Non résidentiel et peu peuplé

Comparison between CMAs
Comparaison entre les RMR



LA CHRONIQUE DE L'HARFANG DES NEIGES (3)

THE SNOWY OWL CHRONICLE (3)

Majella-J. Gauthier

Dans la présente chronique il sera particulièrement question de cartographie dans les médias et plus précisément de cartographie au quotidien *Le Soleil* de Québec. Également, on parlera de nouvelles publications sur la graphique dans la presse, sur les cartes accompagnant les nouvelles ainsi que d'un récent livre sur le mode d'emploi de la carte.

This issue of the Chronicle focuses on cartography in the media, with particular reference to the production of daily maps in a newspaper. Three recent publications are also briefly presented: the first two concern graphics in the press while the last one deals with map use.

L'infographie au journal *Le Soleil*

Dans la province de Québec, il n'y a qu'au journal *Le Soleil* de Québec et à *The Gazette* de Montréal, qu'une équipe de graphistes et de concepteurs graphiques travaille formellement à la conception et à la production de diagrammes et de cartes qui accompagnent les nouvelles de tous les jours. Ces services existent depuis peu: moins de trois ans. Par exemple au journal *Le Soleil*, on a profité d'une opération de changement technologique, commencé en 1985, de toute l'entreprise pour amorcer une transformation de la production graphique devant accompagner les nouvelles.

C'est ainsi qu'on a formé une petite cellule composée d'un journaliste-infographe et deux graphistes. Si de leur côté les graphistes touchent encore un peu aux moyens traditionnels, de son côté le journaliste-infographe produit chaque jour une ou plusieurs illustrations graphiques. Il travaille sur un MacIntoch II couleur en utilisant les logiciels Free Hand et Mac Draw, et produit des copies-papier au moyen d'une imprimante monochrome laser. Cependant, il peut rédiger des illustrations couleur pour le journal en faisant automatiquement et directement au calvier la sépartation des couleurs. Les fonds de carte numériques lui sont fournis pour toutes les régions du monde grâce à un abonnement au service d'une entreprise étatusienne *News Graphics* et aussi grâce à l'emploi du répertoire cartographique *Mac Atlas*. Pour ce qui est des fonds de carte concernant l'espace québécois, qui demande un détail plus fin, *Le Soleil* a fait appel au Laboratoire de cartographie de l'Université Laval.

La mise à jour des icones (logos, nouveaux types d'avion, nouveaux modèles de voiture, etc.) lui est facilitée par l'achat de "clips" sur disquettes, notamment auprès de *Advertizing Dynamics*. et aussi par la numérisation optique de produits locaux ou d'images provenant de catalogues spécialisés. Pour le moment, le journal ne voit pas la nécessité de d'utiliser le nouveau réseau MacIntoch de la Presse canadienne, qui d'ailleurs ne produit ses figures qu'en anglais. Le Soleil a de plus le mérite de publier chaque jour une carte météo couleur couvrant toute une page (le journal publie en grand format et imprime 100 000 copies sur semaine). Même si la carte est produite par la Weather Service Corporation, il n'en demeure pas moins que toute la conception et l'habillage sont purement réalisés à Québec.

Voilà donc une maison de presse qui à notre avis a fait un bon choix. *Le Soleil* a tout en main pour produire plus fréquemment des cartes originales et possède maintenant les moyens pour améliorer la qualité des graphiques dans la presse et notamment des cartes.

Trois publications récentes

Serge et Madeleine Bonin viennent de publier un manuel dont les buts sont:
d'ouvrir la voie à des nouvelles utilisations de l'illustration graphique; de montrer comment on passe d'une quantité de documents complexes " à lire" à une série d'images simples "à voir"; de découvrir qu'une carte peut être beraucoup plus qu'un simple inventaire des lieux; d'apprendre à faciliter les comparaisons, à mettre en relief les oppositions régionales et les localisations particulières; de proposer une démarche logique qui mette en lumière toute l'information dont un document graphique est porteur. Voici la fiche bibliographique de l'ouvrage: Serge et Madeleine Bonin, *La graphique dans la presse: informer avec des cartes et des diagrammes*, Paris, Presse et Formation, Éditions du Centre de formation et de perfectionnement des journalistes, 1989, 175 p., ISBN 2-85900-028-3.

Mark S. Monmonier has just published a new book on journalistic cartography: *Maps with the news, the development of american journalistic cartography*, Chicago, the University of Chicago Press,1989, 331 p., ISBN 0-226-53411-1. This book is a lively assessment of the role of cartography in American journalism. The author especially deals with the use of maps, successives technologies, the maps for accurate coverage of news or for commercial attraction, philosophical and institutional issues, the role of maps, etc.

Roger Brunet pour sa part vient d'enrichir la banque des ouvrages de grande qualité sur les cartes géographiques. C'est le Réseau d'études des changements dans les localisations et les unités spatiales (RECLUS) qui en fut le cadre de production. L'ouvrage est particulièrement intéressant lors de l'explication des structures spatiales élémentaires qu'on appelle "chorèmes". Voir le compte-rendu bibliographique dans la revue *Cartographica*, vol. 26, no 2. La fiche bibliographique du volume est: Roger Brunet, *La carte, mode d'emploi*, Paris, Fayard-Reclus, 1987, 270 p., ISBN 2-213-0848-0.

Majella-J. Gauthier
Université du Québec à Chicoutimi
Chicoutimi, G7H 2B1
Télécopieur / Fax: 418 545-5012

Tydac up for award

On September 6, 1989, Minister Harvie Andre of Industry, Science and Technology announced that TYDAC was selected as one of the three finalists for the Innovation Award Category in the Canada Awards for Business Excellence.

On November 7th at the Awards Ceremony, the gold, silver and bronze winners will be announced for each of the nine award categories. We are honoured and very pleased that TYDAC has been selected as a finalist and look forward to the final announcement on November 7th with great anticipation!

MAPPING WORLD NEEDS MEAN MACHINES:

Introducing the McEnroe personal computer!

" I was looking at a sales brochure for the Macintosh personal computer", said my friend, Hunton Pecker (no 'u'). "Very user–friendly".

"As computers go" I replied, "I hate being called a user".

"Maybe too friendly", he said "some people might work better with a machine that has a... well, stronger personality".

"You sound like a man with something in mind", I suggested.

"Right," said Pecker, "If the Macintosh is too wimpy, get yourself a McEnroe".

"The McEnroe personal computer?", I queried.

"Yes, with user–surly crudware".

"Sounds difficult to market, you'd need an aggressive sales strategy", I countered.

"Apple sells the Macintosh as 'the computer for the rest of us'. Well, the McEnroe campaign should meet this head on: 'Let the rest of them HAVE a Macintosh.' The McEnroe, for people who don't have time to bleep around."

"Pretty aggressive", I agreed, "have you designed the product yet?"

"I have a few ideas, for example, you know how the Macintosh points to something on the screen?"

"You mean, the mouse?"

"Yes, well the McEnroe would have the same idea, but it would be called a rat. And instead of an arrow for a pointer, there'll be a fist, with the middle finger extended."

"A real digital computer, eh?"

"And if you don't do anything for 10 seconds, the fist drums its little fingers and a message appears: 'Get on with it'".

"What happens if you roll the rat too far, does it go off the screen?"

"Yeah, but a message appears on the bottom: 'Are you blind, that was IN'".

"What about system errors?", I wondered.

"Well, it insists that it's right until the user gives in. In the case of user errors, while the Macintosh does not let you make mistakes by removing a data disk before it has been updated, the McEnroe when asked to eject a disk or quit a file, flashes a message 'It's your funeral' and pitches the disk across the room'".

"Sounds difficult to use", I complained.

"It will keep you on your toes", stressed Pecker. If you push the 'help' key, you get a message: 'Read the manual, quiche–for–brains'.

"If you want to be pampered, buy a Macintosh, he declared, "but if you want to feel you've earned your pay, get a McEnroe".

(Adapted from a column by Alan Connery, Calgary Herald)

The CCA Manager's 1967 Beaumont.

En route to the 1990 CCA annual meeting in Victoria, CCA members are invited to join an intrepid herd of adventurers in Calgary, who will attempt to make the 600 mile journey to the west coast in a primitive vehicle in order to prove that early cartographers may well have taken this route to reach the west coast (or indeed vice versa). They will be armed only with the basic necessities: topographic maps and a fair supply of six–packs, enduring the toughest of conditions, foregoing even cable television for up to four days, to reach the enticing goal of lotus land.

The journey will include sighting the highest waterfall in the land, giant cedar trees, glaciers descending almost to the road and an enchanted forest. Should there be sufficient adventurers, an additional vehicle of the same ilk will be acquired.

Interested voyageurs should contact the CCA manager: Roger Wheate (address/phone in this issue on page 2.)

Canadian Cartographic Association
L'Association canadienne de cartographie

President's Prize Competition
Concours pour le Prix du Président
1990

Submissions are invited for the 1990 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.

Vous êtes invités à soumettre votre projet cartographique au concours pour le Prix du Président 1989-90. Ce concours est ouvert aux étudiants et étudiantes 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 comprend cinq catégories et, dans chacune d'elles, un prix en argent (de l'ordre de 50,00$) accompagnant un certificat sera décerné lors de la réunion annuelle de l'ACC à Victoria en juin prochain.

The competition includes five award categories/ Les cinq catégories comprennent:

Monochromatic Map/ Carte monochrome:

A printed map (or map taken to the proof stage) in black and white . Emphasis in this category will be placed on innovation in data manipulation, symbolization and graphic design. **Each entry must be accompanied by a brief (500 words max.) typewritten text describing the purpose of the map.**
Une carte monochrome (conventionnelle ou de type journalistique): une carte imprimée en noir et blanc. **Un court texte (maximum de 500 mots) devra définir la problématique et les objectifs de la carte.** Dans cette catégorie, l'évaluation portera su l'innovation en regard du sujet choisi, de son interprétation, de sa symbolisation et de la qualité graphique.

Award value/valeur :$50 CDN

Colour Map/ Carte couleure:

A printed map (or map taken to the proof stage) Emphasis in this category will be placed on excellence of execution and fulfillment of stated design objectives. **Each entry must be accompanied by a brief (500 words max.) typewritten text describing the purpose of the map.**
Une carte imprimée couleurs (ou à l'étape de l'épreuve couleurs) **Un court texte (maximum de 500 mots) devra définir la problématique et les objectifs de la carte.** L'évaluation portera sur la qualité de l'exécution de la carte et la réalisation des objectifs prévus dans le projet. Award value/valeur :$50 CDN

Formal Written Paper/ Texte écrit conventionnel:

A paper of approximately 2000 words on any theme relating to cartography, submitted in the style and format required by the journal "Cartographica".
Un texte écrit conventionnel portant sur des sujets cartographiques d'ordre théorique, administratif ou pratique. L'article, comptant plus ou moins 2 000 mots, devrait être soumis dans le style et le format exigés par la revue CARTOGRAPHICA.

Award value/valeur :$50 CDN

Computer Algorithm/ Algorithme d'ordinateur:

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 (spécifiquement conçu pour résoudre un problème cartographique) soumis sous forme de code, de quelque langage que ce soit, accompagné d'une brève description et d'une preuve de son fonctionnement.

Award value/valeur :$50 CDN

Journalistic map/ Production "carto-journalistique":

A map suitable for reproduction in a popular newspaper or magazine. **Each entry must be accompanied by a brief (500 words max.) typewritten text describing the purpose of the map.**
Award value:The award for the winning entry in this category is $200 US, generously donated by Time Magazine.
5. La meilleure production "carto-journalistique": le prix de 200,00US$ est offert par Time Magazine. La carte devrait être accompagnée d'une brève description (maximum 500 mots) décrivant le but poursuivi. **Un court texte (maximum de 500 mots) devra définir la problématique et les objectifs de la carte.**

- **Submissions must reach the CCA office in Calgary (address on page 2 of this Newsletter) by June 1, 1990. /Les candidatures au concours doivent parvenir à l'ACC à Calgary (voir page 2 pour l'adresse) au plus tard le 1 juin 1990.**
- **Membership in the CCA is not required./ Il n'est pas necessaire d'être membre de l'ACC pour participer au concours**

Where we stand....

Here are the most up to date statistics on the CCA membership as provided by the CCA Manager, Roger Wheate. They are printed here both for interest's sake and for use as a possible data set for student entries in the President's Prize Competition.

CCA MEMBER STATISTICS
(as of SEPTEMBER 26, 1989)

Total members: 395
Canada: 262
USA: 103
Overseas: 30

CANADA (262)

BC	19
Vancouver	10
Victoria	9
ALBERTA	44
Edmonton	13
Calgary	28
Lethbridge	3
SASKATCHEWAN	8
Regina	6
Saskatoon	2
MANITOBA	8
Winnipeg	6
Brandon	2
ONTARIO	115
Toronto	40
Ottawa	41
Lindsay/ Peterborough	10
Waterloo	8
London	5
Kingston	5
St. Catharines	4
N. Ontario	2
QUEBEC	39
Montreal	22
Quebec	8
Sherbrooke	5
Hull	1
N. Quebec	2
NEW BRUNSWICK (All Fredericton area)	4
NOVA SCOTIA (All Halifax area)	14
NEWFOUNDLAND (All St. John's)	8
YUKON (All Whitehorse)	3

U.S.A. (103) – 30 States

NY	15
VA	10
CA, MA	7
MN, PA, WI	6
CO, IL	5
OH	5
MI, MO	3
DC, IA, KS, MD,	2
OR, SC, TX	2
CT, HI, IN, KY,	1
LA, NM, RI, SD,	1
TN, VT, WA	1

OVERSEAS (30) – 15 Countries

U.K.	7
Hong Kong	5
Australia,	2
Belgium, Japan,	2
Netherlands,	2
West Germany	2
Iceland, Israel,	1
Italy, Malaysia,	1
Saudi Arabia,	1
Spain, Sweden,	1
Switzerland	1

Order From the Chaos; One Small Step Towards the Rationalization of Cartographic Association in Canada

A suggestion by
David H. Douglas
(Chartered Cartographer)

A Special Kind of Problem!!!

It is an old joke, ... as old as Expo 67, or even older, so I hope you'll forgive me for using it to get started.

> *"Expo 67 was a great national event that would bring masses of tourists from almost every corner of the globe to Montreal. The Fair was badly in need of young people from all around the World to serve as guides. A group of applicants was about to be tested for fluency in English on the basis of impromptu speaking ability.*
>
> *"Compose a title and speak for one minute on the following topic" was the examination question. The topic? "The elephant!"*
>
> *Well the American began her speech with the title "Towards Bigger and Better Elephants". The Russian followed with "The Elephant and the Mouse: a Perpetual Class Struggle". Of course the German boy's speech was titled: "Making Elephants More Efficient", and the French girl's: "The Love Life of the Elephant"*
> *Then came the Canadian. "The Elephant: Is It a Federal or a Provincial Matter?".*

It seems that almost every question in Canada somehow grinds down to this fundamental basic question. Obviously explained by the simultaneously dispersed and clustered nature of the country's population distribution, this is how the dichotomy of local versus global is expressed in Canada.

In Canada all matters to do with employment and accreditation for employment are, by the constitution, provincial matters. Doctors, lawyers, plumbers, pipe fitters, and elevator inspectors are all licensed by a province. It results in a host of problems with our set of unequal sized provinces, where the population of a whole province may be less than that of a suburb of one city in another province. Even in a profession with large numbers of practitioners the problems of accreditation are difficult. For instance in the smaller provinces the whole legal establishment might be acquainted on a first-name basis, leaving open the question of just how objective the justice system is there, not to mention the accreditation process. On the other hand, the largest provinces may be too large, resulting in individuals being saddled with the feeling that they are insignificant cogs in a giant impersonal wheel. In a profession with a very small number of practitioners, relatively speaking, such as cartography, there is a problem of threshold numbers even on a national scale.

Funnily enough the requirement for employment accreditation to be administered by a provincial body results in representation problems at international levels. This becomes evident whenever international membership in a Worldwide association is considered. Normally international organizations, such as the UN sponsored International Geographical Union, recognize only national associations as member units. This incompatibility can be dealt with by the formation of some kind of national federation of provincial bodies, or it is done by the establishment of a separate national body that does most things expected of a professional association, leaving accreditation matters to provincial sub-groups. This is probably a "best case" situation that often applies to long established professions that are well defined in scope, and within which occupational stratification is also well defined.

There are several "worst-case" scenarios. One such scenario is when provincial associations dominate with no interprovincial coordination leaving their members **without any** communication link to the international association for their discipline. Another "worst-case" scenario may have the profession represented by a national association of a completely different discipline. Yet another occurs when the practitioners of a given discipline in Canada are forced to make their contributions to international activities in the field via a channel and the auspices of another country. To varying degrees Canadian cartographers endure all of these indignities. It presents us all with a perplexing problem of professional and academic association.

Reaching the Masses

Jean Carrière, President of the Canadian Cartographic Association (CCA), estimates that in Canada there are between two and five thousand people who make their living doing something related to cartography or in geomatics related endeavours. This is growing all the time. Yet the combined membership of all the cartographic organizations in Canada is well below a thousand, and that includes a multiple count for individuals who are in two or more of them. The membership of the CCA has remained more or less constant at approximately 380 members since its inception in 1976. The Ontario Institute of Chartered Cartographers is the oldest cartographic association in Canada, being founded in 1959. It has 211 members of which 181 have obtained the *"Chartered Cartographer"* or *"Associate*

Cartographer" accreditation. There are two other provincial associations. L'Association Québécoise de Cartographie(AQC), with a vigorous membership once reaching 350, produces the pace-setting Newsletter *Carto Québec*. It serves the needs of its French speaking membership with greater sensitivity than other provincial, or "national" organizations that operate in English or in bilingual mode. The Pacific Institute of Cartographers Society (PICS) is the British Columbia based body with just over seventy members. The controversial title of its newsletter, *The Northwest Cartographer*, is representative of a very considerable appeal for membership from the Northwest States of the U.S. There have been other Provincial organizations. In 1981 the Manitoba Association of Cartographers was formed. After three years the Association decided to terminate itself recommending to its forty-two members that they join the CCA or the OICC. The path has not always been easy for the three Provincial Associations that have survived. In 1985 an editorial in the *Northwest Cartographer* stated that "we were within and inch of being thrown into turmoil" because of lack of attendance at an AGM, and the OICC has had difficulty for a number of years, including this year, in appointing a Board of Directors because of an acute shortage of volunteers.

All three provincial organizations have annual general meetings, technical meetings to which the public is invited, guest speakers on technical subjects, and produce interesting, professional quality Newsletters. All three provincial organizations have had one or more joint meetings with the Canadian Cartographic Association, resulting in an event that was more successful for both the national and the provincial body than the mere sum of effort would warrant. Clearly, there was a synergistic relationship.

The Ontario Institute of Chartered Cartographers, having been formed in 1959 when, apparently, the time was ripe to get them, has something extra. It has official Provincial **"Letters Patent"** to grant member practitioners the title *"Chartered Cartographer"*. Read *"Chartered Cartographer"* here as in *"Chartered Accountant"*. It is an official accreditation. Although the PICS and the AQC have petitioned their respective provinces, the Ontario Institute of Chartered Cartographers is the only such charter granting organization in Canada. In fact it is the only known government approved accreditation for cartographers in the World.

The OICC, as an Ontario Corporation, is entrusted with the task *"to create and establish professional standards and a code of ethics for the guidance of the members of the Corporation and for greater protection of the public."* A five paragraph code of ethics and by-laws are included in its constitution. The by-laws define a "cartographer", grades of membership, and a listing of required qualifications to obtain each of the four grades. The standards are in no way meant to be, nor are they used to promote exclusivity, and in being general as they are, recognize and allow for the dynamic changes that are taking place all the time in the field of cartography. The important thing is that the Institute itself, through its elected Board of Directors or by petition from any member, can review and re-define the standards for accreditation. The Corporation is required to submit a list of its Board of Directors to the Ontario Government once a year.

The Institute and the various titles of "Chartered Cartographer" are not exclusive with respect to the province. There are **no** "nationality" or residence requirements. I do not believe there is any requirement to have meetings in Ontario, including the Annual General Meeting, subject only to meeting the needs of most of its members.

Of its 211 members just 129 reside in Ontario. Alberta has 18; Saskatchewan 13; Québec 11; British Columbia 9; and the other provinces in Canada 8 between them. There are 22 foreign members. Each Chartered Cartographer gets a splendid certificate suitable for display in the work place.

It is my contention that the *"Chartered Cartographer"* accreditation would be of great interest to large numbers of cartographers in Canada. In the same way that it does not matter to a Danish, or other national shipping company, to have its ships registered in Liberia or Panama and to fly these "flags of convenience", the OICC "Charter" could be looked upon as a "flag of convenience" for the cartographer, wherever he resides. Fifty-nine members in Canadian provinces other than Ontario, and twenty-two foreign members, indicate that the Charter is indeed useful to cartographers outside Ontario. With only 211 members overall, it is safe to say that this charter has a great deal more potential to serve Canadian cartographers. A greater degree of integration of the OICC into the CCA in order to publicize and expand the usage of the *"Chartered Cartographer"* accreditation may help to exploit this unique and valuable accreditation. But this is **not** a simple appeal for membership in the OICC. It is an appeal to come to grips and deal with the fragmentation of cartographic representation in Canada. There are unique resources and strengths of each provincial body and there is unexploited strength in the Canadian Cartographic Association. Beyond the obvious problem of fragmented and indirect international representation there are major problems caused by dis-economies of scale, unnecessary duplication, and the unintended withholding of information of interest to every cartographer across Canada.

Myths

I first want to prick the balloons of some myths that are

prevalent regarding professional cartographic association in Canada and which are often used to counter suggestions of some kind of integration of the provincial and national bodies.

MYTH No. 1:

The membership of the Canadian Cartographic Association is comprised primarily of academics, who are interested in national and international travel for conferences, (and who can afford it), while the provincial associations serve the "working" cartographer who is interested in local activities and who is not interested in international affairs.

There are a lot of misconceptions expressed here. One is that the academic has money for travel to conferences and no one else does. In truth academics often envy "private enterprise" and "corporate" colleagues for precisely the same reason. However everyone may apply for travel funds to the CCA, which in turn applies to the granting agencies for block travel funds. If there is any truth in the myth it is that academics may be more likely to apply for the funding. This is unfortunate because all it takes is completion of a simple form.

Regarding the composition of membership: only a quarter of the membership of the Canadian Cartographic Association is comprised of university professors or researchers. Although the questions asked in a PICS survey in 1985 were not quite parallel, the results showed that 75 per cent of respondents had college/university graduation or post graduate degree. Seventy percent were working as cartographers or teach.

Regarding international affairs: In a 1983 meeting of the CCA Executive the Dutch president of the International Cartographic Association was critical of Canada for its diffused and diluted input to the International body. It was apparent that the *whole* cartographic community was not represented; a situation for which cartographers too had a degree of unmet responsibility. Since this was recognized and commented upon from abroad it was an embarrassment we all share. There have been a few changes since. For example Fraser Taylor has been elected president of the ICA. The Canadian institute of Surveying has added "and Mapping" to its name and has increased its efforts to accommodate of all groups. However most of the representational and communication problems remain. Representatives are appointed by unspecified mechanisms and the power of appointment remains largely beyond Canada's cartographic associations.

MYTH No. 2:

That members of provincial organizations (OICC, AQC, and PICS) are primarily practical "working" cartographers who have little interest in high technology fields like geomatics and computer cartography.

The truth is quite the opposite. In the past dozen conferences held by provincial bodies more than half the papers presented at each one of them were directly related to advanced geomatics topics and ongoing research. Also it is hard to imagine anyone working in cartography who has not endured major impacts on his work from the results of research in computers.

MYTH No. 3:

The really important research is done in the U.S. and published there. Canadians who do research might as well get it into important U.S. journals right away and not worry about international "lines of communication".

In fact *Cartographica* was one of the first research journals in cartography to be published, and it has maintained a very high reputation ever since. It is one of two journals paid for by the I.C.A. to be distributed free of charge to new member states. Many U.S. researchers prefer *Cartographica*, not only for its reputation for quality, but also to obtain fast entry into the print media, and to take advantage of its readership which is far broader than the membership of the CCA. For instance it goes to some 800 libraries around the World. Canadians can be proud of *Cartographica*.

MYTH No. 4:

Because a person doesn't read every paper in a learned refereed journal he shouldn't have to buy it.

A learned journal is not a popular magazine. You can read *McLeans* while waiting in a Doctor's office, but if it isn't there you can read something else. But the results of research are made known to the public via learned refereed journals. These go to libraries where access is universal. If it suddenly becomes important to you to find out about research in some disease, for instance, you can go to a library and read about it in a medical journal. Of course if you are not a doctor you probably should not have to pay for a subscription. However a professional in any field has an obligation

to dedicate a small part of the income to support research in his field. One way to do that is to belong to an association that officially sponsors a journal. Canada has a fine, well respected, learned journal in Cartography, but because of the small subscription from less than 400 members of the Canadian Cartographic Association, it is suffering from lack of subscription support.

I have included these comments about learned journals because a sizeable portion of the membership fee in the Canadian Cartographic Association goes to help pay for *Cartographica*. One reason people give for not being a member of the CCA is because "they don't want to pay for a journal that they don't read". I say I don't read everything in it either, but I feel that by contributing a small portion of my income to it I am contributing to research in my field by supporting a well established widely read medium in which researchers can publish.

What You Pay For

Sometimes you get less than what you pay for, or you might get more than what you pay for. But to get more you must have a keen eye for the value of what you got.

In spite of the lower fees for membership in the OICC, AQC, and PICS, they obviously produce enough revenue to cover the cost of production of excellent newsletters. But after reading many issues I feel that the significant difference in content between these newsletters and that of the *CCA Newsletter* is not in local versus national coverage. It is in the inclusion of interesting but less formal articles, cartoons, photo-copies of newspaper items, and reprints of papers that have appeared elsewhere. All of these things would make the *CCA Newsletter* more interesting and would be much appreciated all across Canada.

Cartographica is endorsed as the Journal of the Canadian Cartographic Association. The production cost of this journal is very much higher. In fact the portion of the CCA membership fee dedicated to *Cartographica* covers only about 10 per cent of the cost of production. The rest is made up by generous grants from the two Federal Government granting councils, and the deficit after that is buried in overall production costs of the University of Toronto Press, which owns the journal. The grant money on which *Cartographica* depends is completely dependent on the maintenance of high quality, not only of format and style, but on the quality of its scholarly content. It is a wonderful resource available to Canadian cartographers and should be regarded as the treasure it is. It contains articles by Canadian and foreign scholars on a broad range of cartographic subject matter from the history of maps through to geomatics technology. To benefit from this journal one need not read every article in it. In fact few people do. The real benefit to those who practice cartography in Canada is in having it.

How to, and how not to, rationalize!!!

The organizational resources available to Canadian cartographers are vast, but fragmented. There is a first rate internationally recognized learned journal, four newsletters (including the *CCA Newsletter*), a unique official charter granting accreditation for employment, four sets of annual general meetings, numerous local meetings, and four ways to get involved such as in the executive of one of these organizations. There obviously should be a way to rationalize this organizational discombobulation. At the very least it should be possible to count the members of the PICS, AQC and the OICC in membership totals for the CCA. At most there should be some kind of integration that allows for the realization of some economies of scale, such as by the reduction of unnecessary duplication.

I believe the time has come for some sort of working union which would expand the number of members in the Canadian Cartographic Association and yet let members in local groups have the autonomy needed for the activities that they perceive to be important.

There are two ends of a spectrum of association mechanisms. One would have the provincial associations disband and integrate everyone into the Canadian Cartographic Association. The other end of the spectrum is to dissolve the concept of individual membership in the Canadian Cartographic Association, which would then recognize only provincial groups as members. Each Association would provide a number of delegates to the "Federation". The number might be based on equality, (favoured by the smaller units), or on a "rep by pop" basis, (almost always favoured by the larger organizations).

In my view **neither of these two extremes is viable.** Firstly the provincial organizations are too well established, have loyal followings, and provide services that are obviously required. With regard to the OICC charter, the provincial organization must continue to be an entity to maintain it. Bilingualism in a newsletter is often perceived by the minority language group as tedious tokenism, regardless of the good will that is present. The need of the minority language group to control and operate a unique medium such as *Carto-Québec* will not likely change.

The other extreme of a delegated federation will also fail. To ensure that all Canadians are represented would require an association for every province and each territory. The

disbandment of the Manitoba Association of Cartographers points to the enormous problem of threshold numbers. More importantly the NCC experiment of the late seventies demonstrated the propensity of organizations of delegates to get bogged down with representational problems, feedback inertia, and to gravitate to "in groups". More than the "in groups" themselves, the suspicions about them were especially devastating. Federations of delegates have great difficulty scheduling meetings, obtaining, and allocating travel costs. The meetings often turn out to be what I once called the *"Let's-get-a-bunch-together and call a meeting in Ottawa when I am passing through"* syndrome. In fact I once heard an Ottawa based member of the NCC state "If a member organization is so stupid to elect a president from the Yukon or some far-out place it doesn't deserve to be represented". Such geographic friction is intolerable in an association that purports to be representative of all of Canada. In a way both these syndromes are still in operation regarding the activities of the ICA. It is clearly unsatisfactory.

A Proposal

There is a *broad* spectrum of federation types between "legislative union" and "treaty organization" from which a satisfactory arrangement might be made. I am not a member of the AQC or PICS so I will leave the proposition of methods for them to their members. I am a member of the OICC and on the Board of Directors. So as an individual member of both the CCA and the OICC I wish to propose the following.

The Canadian Cartographic community needs an accreditation methodology. This has been called for by Lou Skoda, Jean-Claude Muller, and many others. We have one. Let's use it. Let's not be bothered by the fact that it is an Ontario Corporation. Our Federal constitution states accreditation matters are provincial, therefore no Federal charter is possible. If it has not been possible for Québec and British Columbia to obtain charters it certainly is unlikely that the other provinces will be able to get one.

To the OICC as a Society, I suggest that references to "Ontario" be downplayed. For instance the Charter certificate itself could be slightly re-designed to emphasize "Chartered Cartographer" placing references to "Ontario Institute of Chartered Cartographers" at a much lower level of prominence. Small amendments to the OICC Constitution will not change the meaning but remove possible sources of irritation to residents of other provinces. For instance one of the qualifications stated is "a diploma from a recognized college in Ontario (or the equivalent), ...". I am sure no one in the OICC intended to exclude graduates from COGS, or BCIT, as proven by the word "equivalent". A few such minor wordings could easily be corrected to read "in Canada (or equivalent)".

The CCA might respond by creating an "Accreditation Interest Group", which would be the OICC. The only change to the CCA constitution required would be the specification of a special method of election of officers of this interest group. It would not be done "at large", as is the case for the other interest groups, but rather according to the OICC Constitution by Chartered Cartographers. The OICC would then have a place on the Executive of the CCA for its leader. To counter the impression that it is a local "Ontario" group the CCA, through its newsletter, would advertise the availability of this accreditation to its entire membership. Those wishing to and who qualify as Chartered Cartographers would have a small addition to their CCA annual membership fee for administration. Only a very few other changes would be necessary to accommodate this somewhat special "interest group"

I propose that the *CCA Newsletter* and the *Chartered Cartographer* merge into a new newsletter with a unique name, and the content of the new one be broadened to include the types of material found in both of them. Editors are often appointed by "shaft", rather than as a result of "vigorous competition". The integration of the *Chartered Cartographer* and the *CCA Newsletter* would broaden the field from which to choose (or find) an editor. Certainly an assistant editor can be found to add items of "local" Ottawa or Toronto interest.

To conclude I wish to say that I hope that work can begin forging this union almost immediately. A major hope of mine is to see the PICS and the AQC enter the CCA on terms set out by themselves to meet their own needs and those of Canadian cartography. The cartographic community is not a government beset with problems like justice and divisive issues like abortion. Therefore there is a lot of leeway in the kinds of federation possible, and different types of agreement can be accommodated for the different organizations. I think this "spatial" integration should be undertaken as soon as possible and then we can get on with "subject" fragmentation. Who is next? Could it be the ACML?

Call for nominations!

Elections for the following positions will be held in Spring 1990, with the results to be announced at the Annual Meeting in Victoria B.C., June 10-13, 1990

Vice president;
Secretary / Newsletter Editor
Chairperson of Interest Groups
History of Cartography
Map use/Design
Computer–Assisted Mapping/GIS.

Members with suggestions for the above positions on the executive are invited to contact a member of the nominating committee.

Chairman–
Norman Drummond, Dept. Geography, McGill University,
805 Sherbrooke St W Montreal,P.Q. H3A 2K6,

Anne Gibson,
Graduate School of Geography, Clark University,
950 Main St., Worcester, Mass.,01610 USA

or James Britton,School of Natural Resources,
Sir Sanford Fleming College, Box 8000, Lindsay , Ont.,K9V 5E6

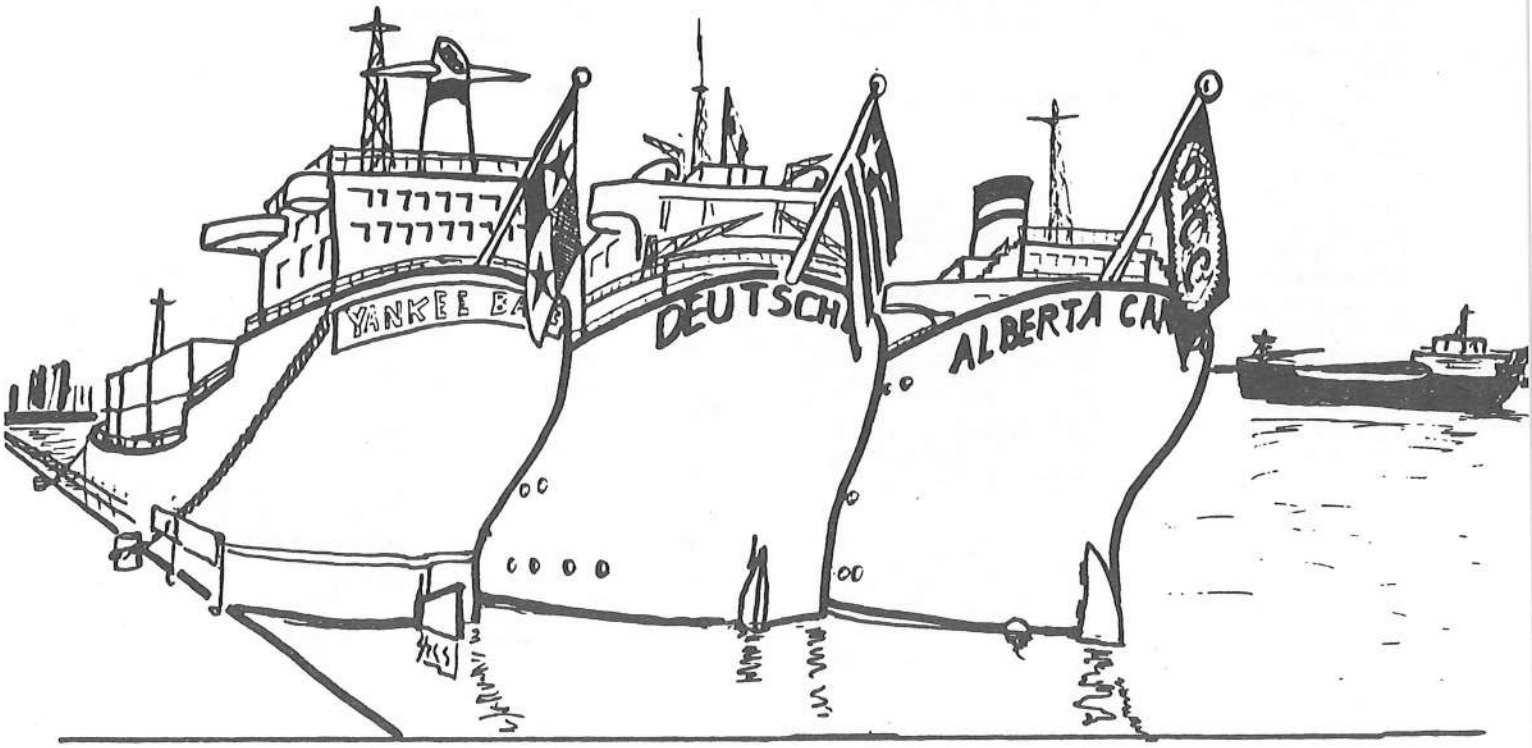
Nucor News.....

Nucor's Satellite Imagery Transcription Service

Through an agreement signed in 1988 between Nucor and the Canada Centre for Remote Sensing (CCRS), clients can order satellite images of both LANDSAT and SPOT data on microcomputer compatible floppy disks (1.44 MB, 1.2 MB, and 360 K; DOS format). Nucor extracts subscenes as small as 512 x 512 pixels, and also transcribes full scene multiple windows from computer compatible tape to diskettes. This service provides easy access to the technology of remote sensing and makes it affordable for all users, including those who do not want to invest in expensive tape readers. The price for images range from $150 to $400 per subscene. To order images, call Sylvie Scantland, Nucor's Marketing Support Representative at (613) 592-8666.

Nucor Technologist wins OICC award...

The President's Award of the Ontario Institute of Chartered Cartographers has been won this year by David Mostyn, a GIS technologist with the company. The winning entry, a "star chart" or astronomical map was researched and produced as part of the final semester project in the Survey Mapping Program at Algonquin College of Applied Arts and Technology in Ottawa.



FLAGS OF CONVENIENCE

UPDATE: GIS FOR THE MAC

Roger Wheate

In a summary of GIS software for microcomputers 2 years ago (1987 newsletter, #4), it was stated that there were no packages for the Apple/Macintosh market, but that we can look forward in the future to software becoming available to take advantage of the capabilities of the Macintosh II. That day has now arrived with the announcement of several packages since spring 1989, or as Macintosh would have us believe, "GIS for the rest of us". Nevertheless, the options are so far, much fewer than those for DOS machines. They basically fall into two categories:

a. Implementations of Dana Tomlin's Map Analysis Package (MAP), which has been available for mainframe and DOS machines for several years. These include MacMAP, MacGIS, MAP II, and macGIS below. These have all been developed by educators, for educational purposes and are therefore economically priced. The earlier DOS interface has been greatly enhanced and with increased color capability for the Mac II.

b. Other packages recently ported over from other environments, with generally a broader scope of operations than the first group, such as digital elevation modelling, satellite data input, etc.: notably GRASS.

MacMAP

Developed by Glen Jordan, a CCA member at the University of New Brunswick, this is a set of routines, that is distributed on a single disk, with demo databases on a second disk, for the price of just two blank diskettes.

macGIS/MacGIS

Two packages developed at the Universities of Oregon and Cornell respectively provide basic GIS requirements, with interface to paint programs for display, georeferencing and multiple overlays.

MAP II

Developed at the University of Manitoba, in collaboration with Dana Tomlin and marketed by Wiley and Sons. It can interface with CAD, ROOTS and also input remote sensing data, with considerable digital image processing capability.

GISTutor

More an instructional aid inunderstading GIS, than a GIS itself, composed of 11 Hypercard stacks.

GRASS

Recently ported over to the Macintosh environment as well as to the Compaq 386, it requires a UNIX operating system, (for both environments) which costs as much as the software, but is the most complete of the GIS packages for the Mac, so far. It also requires a minimum 80Mb A/UX disk and 80Mb External Drive. Input/output devices, mapping options and image processing operations are more versatile than for the systems discussed previously, although to date, there are surprisingly few sites in Canada, for such an affordable GIS. It has its own newsletter, an excellent publication, titled 'Grassclippings' (Love that name!)

Other packages of note:

GIMMS

More than a mapping package than a 'true GIS' (whatever that means!), but linked to 'Oracle' for greater GIS capability. It has only recently been converted to Macintosh, DOS and OS/2 versions. There is now a Canadian distributor (listed below). It also has its own glossy newsletter (GIMMS Newsletter).

Mapgrafix

Lacks some of the more powerful GIS analytical capabilities, but has extensive mapping options. Priced at US$8500 with 30% educational discount.

Dirigo

One of the first image processing packages for the Macintosh (see Remote Sensing News in this issue).

GIS SOFTWARE FOR THE MACINTOSH: SUMMARY

Package	Machines	Available	Price($US)	Min RAM
MacMAP	+/SE	Nov 87	2 disks	1Mb
macGIS	+/SE/II	Sept 89	100 – 500	1Mb
MACGIS	+/SE/II	Nov 88	150	1Mb
MAP II	+/SE/II	Spring 89	100	2Mb
GISTutor	+/SE/II	March 89	100	1Mb
GRASS	II	Spring 89	950	1Mb
GIMMS	+/SE/II	Summer 89	3600 (Cdn)	2Mb

Addresses:

-MacMAP: Glen Jordan, Centre for Resource Information Studies, University of New Brunswick, Fredericton, NB., E3B 6C2

-macGIS: David W. Hulse, Dept. of Landscape Architecture, School of Architecture and Allied Arts, University of Oregon, Eugene, OR 97403, USA.

-MacGIS: Cornell Research Foundation, Cornell Business and Technology Park, 20 Thornwood Drive, Suite 105, Ithaca, NY 14850, USA.

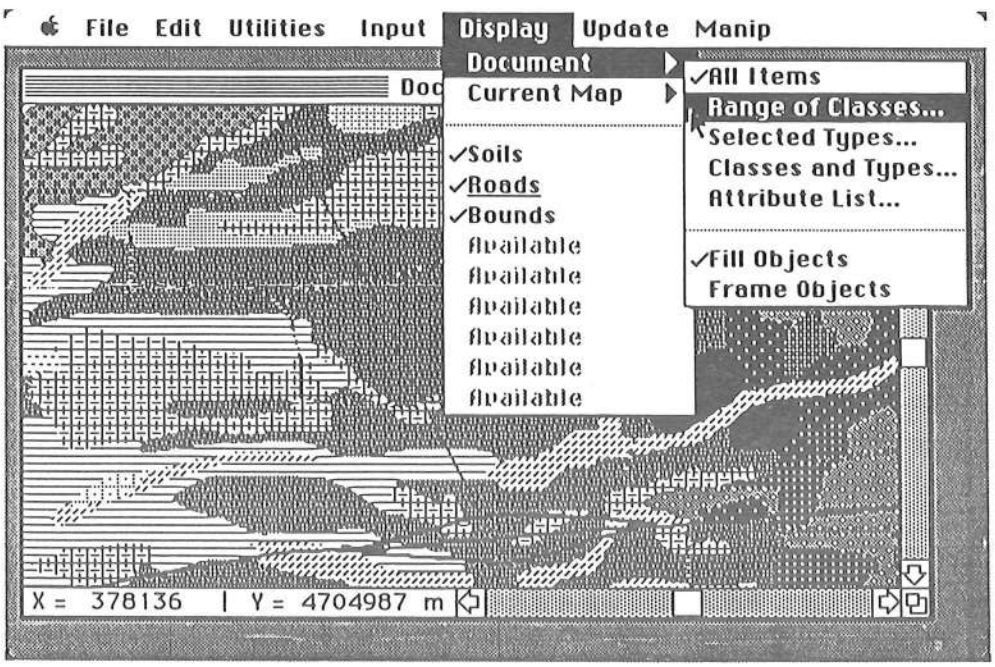
-MAP II: Department of Geography, University of Manitoba, Winnipeg, MAN R3T 2N2.

-GISTutor: GIS WORLD, PO Box 8090, Fort Collins, CO 80526, USA.

-GRASS: USA–CERL, P.O. Box 4005, Champaign, IL 61820, USA.

-GIMMS: Chefford Canada Ltd., 9 Antares Dr., Unit 25, Nepean, Ontario, K2E 7V5.

-Mapgrafix: Comgrafix, Inc., 300 South Garde Avenue, Clearwater, Florida 33516, USA



An example from MacGIS

REMOTE SENSING NEWS

Roger Wheate

IGARSS '89: Vancouver, B.C., July 10–14

For the first time, the Canadian Remote Sensing Society held its (12th) annual symposium in conjunction with the International Geoscience and Remote Sensing Symposium and the International Union of Radio Science (URSI). The resulting meeting titled "Quantitative Remote Sensing: an economic tool for the nineties" was the largest remote sensing meeting yet to take place in Canada. The five day program contained over 900 papers, in 13 concurrent sessions. All papers were posted as well as presented to obviate the impossible task of attending a reasonable percentage of total papers.

The large contingent of IGARSS members, whose backgrounds tend towards engineering, made up most of the sessions in radar and passive microwave sensing of ocean and ice surfaces, platform and sensor characteristics.

In contrast, environmental remote sensing utilising the visible and infra–red wavelengths emphasised two main overlapping themes:

1. Combination of remote sensing data with digital elevation models (dem's)
2. The input of remote sensing data into Geographic Information Systems (GIS)

These themes were also reflected in the nature of the exhibitors. Some of the largest spaces behind the Canadian image processing vendor, PCI of Toronto, were occupied by GIS vendors and CCA members: PAMAP, TYDAC, ESRI and NUCOR. These indicate the growing overlapping interests between the fields of cartography and remote sensing, as a result of the emergence of GIS.

The social side included a 10km run for participants, and the 2nd annual North America versus Rest of the World soccer game, which saw the home side robbed of victory by a Pele type overhead kick and four similarly flukey goals. The symposium wound up with a salmon BBQ in the grounds of the Anthropology museum, as we watched the sun set over the ocean, to whet one's appetite for next year's annual CCA meeting in beautiful Victoria.

CANADA'S FIRST EARTH OBSERVATION SATELLITE

Radarsat, Canada's first earth observation satellite, should create about $400 million in sales for the four consortium members during the life of the satellite, according to a recent announcement from Ottawa.

Intera of Calgary, Spar Aerospace of Toronto, MacDonald, Dettwiler and Associates of Vancouver, and Comdev of Cambridge, Ont. will form a consortium to be called RADARSAT International to distribute data from the satellite.

The $441 million Canada–U.S. satellite project will go ahead under an agreement signed by federal industry, science and Technology Minister Harvie Andre and nine provincial partners. Ottawa will contribute the biggest portion of the cost – $330 million. The private sector is putting up $50 million, while Quebec is contributing $32 million and the other provinces a total of $21 million.

The United States is to launch the satellite in 1994 at an estimated cost of up to $20 million. One agreement calls for Quebec, Ontario, Saskatchewan and British Columbia to contribute towards industrial work performed by companies in those provinces. A second agreement, signed with Nova Scotia, New Brunswick, Prince Edward Island, Manitoba and Alberta, commits these provinces to rpe–pay for Radarsat data in return for participation in planning the distribution of the data nationally.

Radarsat is the first major space project announced since the creation of the Canadian space Agency this year. Since radar involves the active generation of wavelengths of energy for sensing the earth's surface as opposed to the passive sensing of existing satellites such as SPOT and Landsat, the Radarsat satellites will introduce major advantages in mapping and resource monitoring, particularly where areas are cloud covered and during the arctic night.

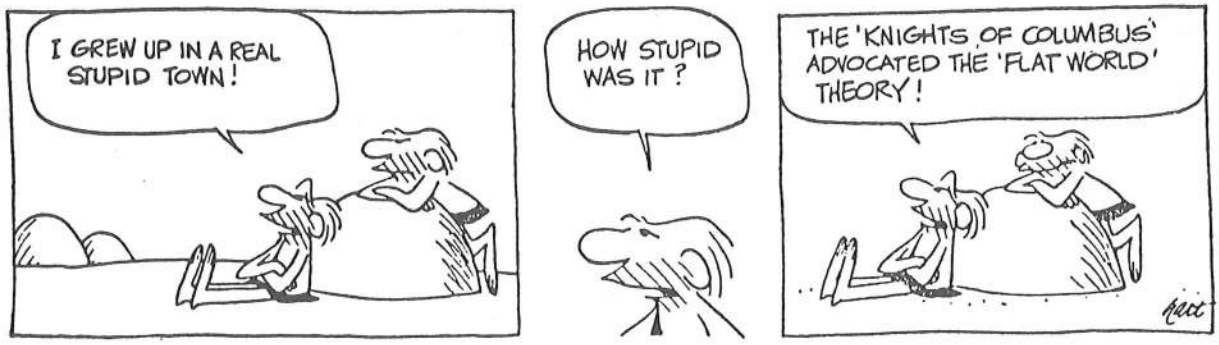
DIRIGO: Image Processing for the Macintosh.

At the recent Canadian Remote Sensing /IGARSS Symposium in Vancouver in July, PCI of Toronto, whose PC and SUN –based 'EASI/PACE' software is widely distributed across Canada and overseas, announced the marketing of one of the first image processing packages for the Macintosh II (with 2Mb RAM). The software, known as DIRIGO was developed at the Department of Survey Engineering at the University of Maine, and is priced at $2000. Data files can be transferred to any EASI/PACE workstation. The modules available at present include contrast stretching, filtering, edge detection, image rectification and registration, density slicing and supervised and unsupervised classification. Further development is planned, particularly when a 32 bit board becomes standard for the Macintosh. Currently, the 8–bit configuration in a Mac II permits only 256 colors, but color composites may be displayed.

Further details may be obtained from
PCI Inc.,
50 West Wilmot Street,
Richmond Hill, Ontario, L4B 1M5.

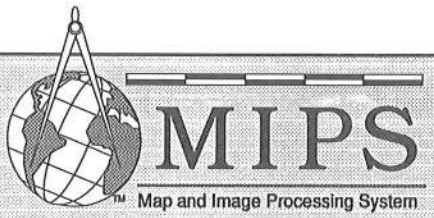
B.C.

By Johnny Hart



A Question for Professionals

who use maps, images, and geographic materials:



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- manage large-scale image and map databases, and
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Coming Events.....

26-29 November 1989 Orlando, Florida
GIS/LIS '89
Contact: ACSM, 210 Little Falls St.
Falls Church, Va. 22046

27-28 November 1989 Toronto, Ontario
Beyond the Pilot Project- The Next Generation
GIS Seminar
Contact: John Houweling,
Ontario Ministry of Natural Resources
90 Sheppard Ave. E 4th floor
North York, Ontario M2N 3A1
(416) 733-5113

22-25 January 1990 Calgary, Alberta
Automated Mapping/Facilities Management
Contact: Mr Rick Bugby,
AM/FM Conference,
Monenco Information Systems Ltd.,
#400 Monenco Place, 801 - 6th Ave SW,
Calgary, Alberta T2P 3W3

5-8 March 1990 Ottawa, Ontario
GIS For the '90's
contact: Canadian Institute of Surveying and Mapping
P.O. Box 5378, Station F,
Ottawa, Canada K2C 3J1

13-16 March 1990 Vancouver, B.C.
GIS '90
Contact: Reid, Collins and Assoc.
15th floor, 401 W. Georgia St.
Vancouver, B.C. V3B 5A1

19-22 April 1990 Toronto, Ontario
Association of American Geographers Annual Mtg.
Contact: Marie Truelove, School of Appl. Geography,
Ryerson Polytechnical Institute,
350 Victoria St., Toronto, Ont. M5B 2K3

23-27 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

August 1990 Edmonton, Alberta
URISA '90
Annual Conference of the Urban and Regional
Information Systems Association
Contact: Hiske Gerding,
Alberta Parks and Recreation,
10405 Jasper Ave.,
Edmonton, Alta. T5J 3N4 (403) 427-5989

23-28 September 1990 Atlantic City, New Jersey
ASPRS/ ACSM Fall Meeting
Contact: ACSM,
210 Little Falls St, Falls Church, Va. 22046

9-16 August 1991 Washington, D.C.
27th International Geographical Congress
Contact: Dr. Anthony de Sousa, 27th IGC,
17th and M Sts. NW,
Washington, D.C. 20036

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

An important date to mark on your calendar.....

10-13 June 1990 Victoria, B.C.
Annual Meeting of the
Canadian Cartographic Association.

Contact: Dr. C. Peter Keller,
Dept. of Geography,
University of Victoria,
PO Box 1700, Victoria B.C. V8W 2Y2
tel: (604) 721-7333

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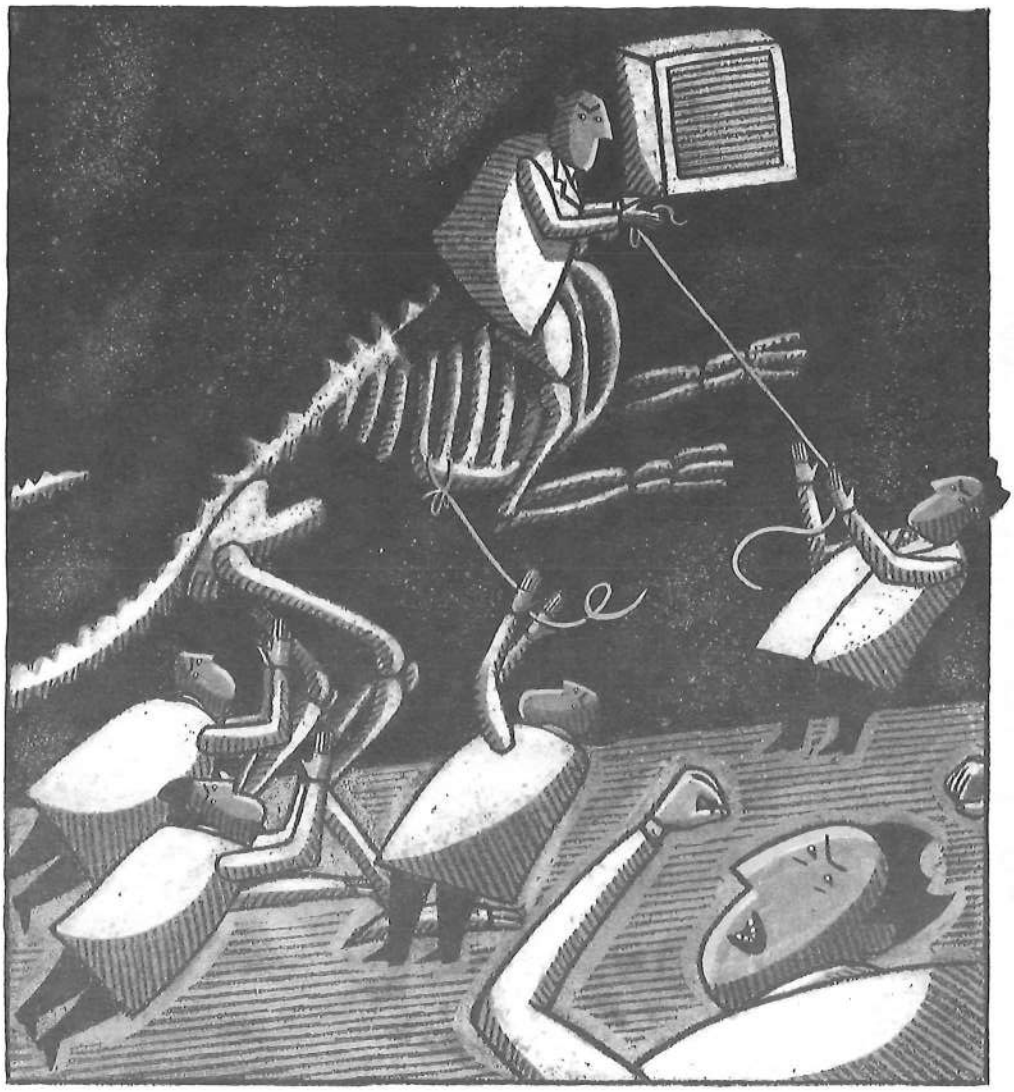

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