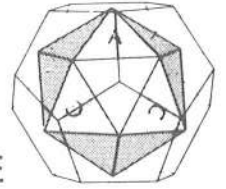


CANADIAN CARTOGRAPHIC ASSOCIATION
ASSOCIATION CANADIENNE DE CARTOGRAPHIE



NEWSLETTER

Volume 13, Number 2, Summer 1987

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Presidents Fraser Taylor (1980), Michel Rheault (1985) and Alberta Wood (ACSM) judge the President's Prize entries.

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(Please note that the old "mailnet" address is no longer operational)

NEW CCA OFFICE ADDRESS

All members please note that effective September 1, 1987, the mailing address for the CCA will be as follows:

**Canadian Cartographic Association,
c/o Department of Geography,
Memorial University of Newfoundland,
St. John's, Newfoundland, A1B 3X9.**

This is the same address as the newly appointed office manager: Clifford H. Wood (see AGM minutes for details). All enquiries regarding membership and organisation of the CCA should be sent to this address.

Tel: 709-737-8988.

(Articles for submission to the Newsletter only should be sent to the Newsletter editor.)

WELCOME TO NEW (1987) MEMBERS

Peter W. De Krom, St. Bruno, Quebec.
Christine Earl, Ottawa, Ont..
Alun Hughes, St. Catherines, Ont..
Pierre Lachance, Beauport, Quebec.
Y.C. Lee, Fredericton, N.B..
Mark MacLennan, Waterloo, Ont..
E. Paul Martin, Boulder, Colorado.
Gary Michalchuk, Victoria, B.C..
William Mills, Edmonton, Alberta.
Peter Milner, Saanichton, B.C..
Micha Pazner (Dr.), Winnipeg, Man..
Steven Prashker, Ottawa, Ont..
Vincent Robinson, Calgary, Alberta.
Ren Vasiliev, Buffalo, New York.
Roger Windsor, Lawrencetown, N.S..
Alvin Simms, Calgary, Alberta.

This newsletter is typeset on a Macintosh PC, with Microsoft Word 3.0. All photographs are half-toned at the University of Calgary, Geography Department Photo-Lab..

**AUTOMATION INTEREST GROUP
CHAIRPERSON:**

Margaret Sommerville has resigned as chairperson of the Automation Interest Group due to company commitments. The CCA Executive has invited Ron Eastman (Clark University) to fill the position and we are pleased to announce that he has accepted the position.

CORPORATE MEMBERS:

Alberta Energy and Natural Resources, Edmonton.
GeoVision Inc., Ottawa, Ont.
GIMMS, South Orange, N.J. & Edinburgh.
Intergraph Systems Ltd., Calgary, Alberta.
J.M.Ellis., Metcalfe, Ont.
Maritime Resource Management Service, Amherst, N.S.
Metropole Litho Inc., Anjou, Quebec.
Metric Mapping Ltd, Calgary, Alberta.
PAMAP Graphics Ltd., Victoria, B.C..
SPAD Systems Ltd., East Amherst, NY, & Santa Barbara, CA.
Statistics Canada, Ottawa, Ont.

ELECTRONIC MAIL ADDRESSES

We currently have the following electronic mail addresses for cartographers; if your name is not on this list, and you have an address, please forward it to the newsletter editor/secretary (Roger Wheate).

Vince Andrews:	ANDREWS@GE.BBK.AC.UK
Marc Armstrong:	BLAMMGPD@UIAMVS.BITNET
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L'Association Canadienne de Cartographie remercie vivement le conseil de recherches en sciences humaines du Canada pour son apport financier.

CCA EXECUTIVE 1987-88

President

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ANNUAL MEETING 1987: UNIVERSITE LAVAL, QUEBEC CITY

Over 150 people attended the Carto-Quebec/CCA joint meeting, May 5-8, bolstered by a strong contingent from the host province. Overall, there were 44 papers presented (22 in english/22 in french) in 5 sessions, 6 workshops and a panel discussion. The opening day drew many attendees to workshops while a dozen 'visiteurs' took advantage of the historic grandeur and fine weather to see the sights of Quebec City and surrounding countryside.



Two Presidents: Alberta Wood (ACSM) and Jean-Luc Emond (Carto-Quebec) between two past-presidents (Cliff Wood and Ray Boyle) are all smiles after a visit to Madame Gigi's.

May 6, the first full day of papers, including simultaneous translation, courtesy of Universite Laval, was hugely successful as the translators kept pace with even the most ethnic of speakers. The evening soiree featuring unlimited champagne loosened the tongues of most anglophones to resurrect their high-school francais. Fortunately, their hosts had also partaken sufficiently not to be offended by any grammatical faux pas.



Bilingual is spoken here: 'John Career' (Jean Carriere), Ron 'Esthomme' (Eastman) et Malcolm 'Brun' (Brown).

Afterwards, the soused hordes descended on the town to sample the many locations of haute cuisine. It was not a good week for Quebec City, since only a few days before the Nordiques had been robbed by the Habs in the Stanley Cup playoffs.



The Newfie connection show their loyalty to the home team: Gary McManus, Ed 'Head' Light, Charlie Conway and Jean Gosselin.

The second day of papers included a 10 paper session organised by Janet Mersey (Education IG). The best paper award was presented to Rod McNaughton (UWO). Gordon Shields (History of Cartography IG) presided over a 6 paper session in his area of expertise. Both these enthusiastic retiring executive members will be missed and should consider running for election in the near future.

That evening, Carto-Quebec again laid on a royal spread, this time at the Chateau Frontenac for the banquet. After Bob Packer attempted to convince the assembly that cartography is fun (we all drank to that), we supped in grand style, while red and white flacons were rapidly drained. Carto-Quebec members showed considerably more stamina than CCA on the dance floor, but the latter's reputation was saved by an unidentifiable executive member donning a tablecloth during 'ghostbusters'.



This social event proved to be the 'icing on the gâteau', the coup of the conference, and there was general agreement that we should return to Quebec as soon as is decently possible for another meeting (if they will have us!).



At the banquet: President elect Chris Gold (left middle) and Paul Pugliese (Time Magazine) between Cliff and Alberta Wood.

THE ORGANISATION AND FACILITIES THROUGHOUT WERE SUPERB. OUR THANKS AND CONGRATULATIONS TO CARTO-QUEBEC AND ESPECIALLY THE ORGANISING COMMITTEE.



Carto-Quebec organisers Pierre Lachance, Remy Normand, and Jean-Luc Emond.

Friday 8th closed the meeting with our AGM; members dribbled in with large cups of coffee. The minutes were duly recorded and presented overleaf. The 1988 meeting will be held at the University of Toronto, in conjunction with the OICC (exact dates to be determined).

All photos by Roger Wheate /
Tous les fotos a Rogé Blé



Following an uncontested election, President elect Chris Gold tries to 'make a run for it', but is spotted at the dock. He will now serve for a year as President of the CCA.



Vice-President Norman Drummond in low-tech cart. lab!

Cartographers converge on SSFC (MAY 26-28, 1987)

Sir Sandford Fleming College in Lindsay, Ontario was the host for the seventh Annual Cartotechniques Conference sponsored by the Ontario Institute of Chartered Cartographers. The theme of the conference was "Cartography in Natural Resource Development"; focusing on cartographic and geographical information systems as used in the development of natural resources.

More than 100 cartographers, geographers and surveyors from across the province and the country were in attendance. Displays from the surveying and mapping industry and government agencies were exhibited at the conference and a wide variety of seminars, demonstrations and workshops were held in addition to the presented papers.

In 1988, Cartotechniques will be held at the University of Toronto, in conjunction with the Canadian Cartographic Association annual meeting.

(Submitted by Malcolm Brown).

**CCA ANNUAL GENERAL MEETING
MAY 8, 1987, 9.00A.M.
UNIVERSITE LAVAL, QUEBEC
Minutes**

1. The meeting was called to order with 26 members present.

2. Past-President's address.

The old tradition of the past-president addressing the membership at the AGM was resurrected, with Cliff Wood presenting a paper entitled "The role of figure-ground, and its potential in eye movement recording".

3. Agenda approved (Schlichtmann/Eastman)

4. The 1986 AGM minutes were accepted as published (A.Wood/Mersey)

5. President's report. (Malcolm Brown)

a. The SSHRC application for funding was submitted on schedule; funding for the Association has been continued for the next 3 years. Many thanks to Louis Cardinal for his work in putting the package together.

b. The University of Toronto has agreed to host the 1988 Annual Meeting; it will be in conjunction with the OICC; the ACML have also been invited to join us if their current plans fall through.

c. The University of Toronto Press has informed the CCA that the price for Cartographica will increase in the upcoming year.

d. Lorraine Fleming has agreed to continue her role as membership co-ordinator until September 1987, when these duties will be included in the new managerial position (see Vice-President's report).

e. In reply to the CCA's request to the ICA to produce GIS related definitions, ICA President, Joel Morrison asked the CCA to provide a representative to help produce such definitions: this representative will be Dr. Eva Siekierska of Ottawa.

f. The Norman L. Nicholson Scholarship has been established and the first recipient is Derek Peddle of the Memorial University of Newfoundland.

6. Vice-President's report. (Chris Gold)

a. Canadian National Report on activities at cartographic educational establishments: most questionnaires have been received enabling a detailed report. Other distributed mail-outs include calls for a GIS committee and calls for new members.

b. The establishment of a paid managerial position. In the past year the executive has recognised the need for continuity in the running of the organisation and a central office for the CCA. The present executive

has experienced some difficulties in locating past documents and procedures in the absence of any archiving system. In these events, the executive has determined that the best way to overcome these drawbacks and to increase the efficiency of the organisation would be to create a part-time paid position in order to: facilitate flow of information, maintain archives for reference, maintain the membership list, and initiate new activities and membership drives etc., among other duties, under the direction of the executive.

The money paid, which would be under \$5000 annually would hopefully be recouped in whole or in part by increased membership numbers (including decreased delinquent members!). Members would benefit through increased services. Initially, Cliff Wood, past-president in 1986-87, has made his services available for this position, with promise of support from MUN. With his long-standing role in the CCA, and the need for continuity, the executive has enthusiastically accepted this offer. The need for some action was stressed by incoming President Gold, which would place too much load on the volunteer assistance we have relied upon in the past. The effectiveness of the position will be continually reviewed.

The following motion was made by Fraser Taylor and seconded by Michel Rheault, and passed unanimously:

Motion: That Cliff Wood be appointed to the paid managerial position initially for one year, and to examine alternatives.

7. Past-President's report. (Cliff Wood)

a. Nominations Committee report:

A slate of very strong candidates was prepared for the 1987 elections, by the committee of Charlie Conway, Majella Gauthier and Tom Poiker. The committee regrets that it was not possible to elect all the excellent candidates who were nominated! Below are the newly elected officers.

President:	Chris Gold
Vice-President:	Norman Drummond
Treasurer:	Louis Cardinal

Interest Group Chairpersons

Education:	Peter Keller
History of Cart.:	Frances Woodward
Technology:	David Mark

A brochure has been created for future nominees for positions, and there will be a standard form for personal information to appear in the newsletter.

b. ICA activity report.

Two Canadian representatives for the ICA meeting in Mexico have been elected. They are Roger Defoe (delegation head) and Cliff Wood (deputy head). Their democratic election represents a milestone in co-operation between the cartographic organisations in Canada. A special report on Cartography in Canada by the CCA will appear in the Canadian Surveyor. In Mexico, 10 papers will be presented from Canada, and the Canadian map exhibit is being co-ordinated by Louis Cardinal.

8. Secretary's report. (Roger Wheate)

The secretary commenced the search for the last application submitted to SSHRC in 1983 and experienced many of the difficulties of continuation alluded to earlier. The Newsletter is now back on track after an inherited 4 month backlog. Feedback was sought in terms of the attempts to modify the format of the newsletter including regular features and columns. It is hoped that a questionnaire along these lines will appear in a future issue.

9. Treasurer's report (Louis Cardinal)

Copies of the CCA's financial status were circulated, and the report was accepted (Motion by Rheault, seconded by Wood).

10. Publications: Cartographica (Bernard Gutsell)

Report filed in abstentia:

a. The School Atlas conference proceedings (1987, vol 1) will be available in the summer: the first of 3 monographs this year due to the decline in submitted papers, a trend resulting from authors' preference to publishing in conference proceedings.

b. The Jenks' Festschrift should also be out in the summer: it is edited by Pat Gilmartin, with a foreword by Arthur Robinson, and includes papers by two Canadian students of Jenks and a paper by Jenks himself. A deluxe bound edition will also be available at \$17.00.

c. The third issue of 1987 will be a journal number: papers are being collected for it now.

11. Membership Co-ordinator's report (Lorraine Fleming): report filed in abstentia.

Total members, 1986: 399. All members now on DBaseIII database. Lorraine has agreed to stay on in her role until Sept. 1, 1987, when the CCA manager will assume her responsibilities among his duties.

12. INTEREST GROUP REPORTS

a. Automation: (Margaret Sommerville) absent, no report.

b. Map design: (Claudette Leblanc)

The questionnaire for the design of tourism/highway maps has been prepared, and 300 copies of the 10 provincial road maps collected. Packages will be distributed this year to members of the general public, and tourism/transportation officials (September). The findings will be presented at the 1988 meeting in Toronto and made available to appropriate departments.

c. Education (Janet Mersey)

All CCA student members were invited to present a paper at this year's annual meeting. As a result, a student paper session was held consisting of eight strong papers and an award for the best paper was given. The recipient was Rod B. McNaughton, of the University of Western Ontario, who presented a paper on "the making and use of maps by orienteers". It is hoped that such a session and award will become an annual event.

The education group has also maintained a file of films available pertaining to the field of cartography and will be passed on to the next chairperson. Two of these films were shown at the 1986 meeting.

d. History of Cartography (Gordon Shields)

Sessions were organised at both the 1986 and 1987 annual meetings. This year, the group hosted a session of five papers, covering North American Indian mapping, the interdisciplinary uses of early maps, early maps of the Quebec region, the problems encountered in the reprinting of early maps, and the use of maps to show historical trends.

As interest group chairperson, I felt the need to assemble a listing of those individuals in Canada interested in the history of cartography, and indeed those world-wide. Such an inventory will hopefully be useful as an aid in planning of future interest group activities.

e. Map Use (Bob Packer)

Contact has been made with journals using maps, with regard to their utilising the map use group as reviewers, with mixed success.

f. Technology (Dawn Rogal) absent, no report.

13. Nominating Committee

Chairman: Malcolm Brown (as past-president)

Elected: Michel Rheault
Gordon Shields
Gary McManus

14. Unfinished business.

a. Student participation in the CCA: deferred to the executive meeting.

b. 1988 AGM at University of Toronto: dates to be checked for conflict with CAG and learned societies.

- c. Suggestion by Jean Carriere for a session and possibly future interest group on cartographic language to embrace semiology and perhaps GIS.
 d. Possible future meetings include Halifax (1989) and Victoria (1990).

15. New business

a. There is a need for an increase in membership fees due to: a need to cover costs, increase in price of printing Cartographica, increased operating costs. The executive proposes the following changes:(old fee in brackets)

Regular member:	\$50	(40)
Student/retired member:	\$25	(20)
Corporate member:	\$150	(125)
Institutional member:	\$60	(50)
Family membership:	\$65	(55)

These proposed changes should raise up to \$2400, and will serve to offset the increases described. A motion to accept these changes was proposed by A.Wood, seconded by H.Schlichtmann, and carried unanimously, although the following points were raised: Should student fees perhaps stay the same, and should overseas fees be higher? However, the student fee leaves no margin in fact since for each member, \$21 goes to the U. of T. for Cartographica and about \$4 for the newsletter.

15. Announcements: The winners of the President's Prize were announced: see separate column.

16. The meeting was adjourned at 12.15 p.m

AAG/CSG STUDENT PAPER COMPETITION

The Cartography Specialty Group (CSG) is pleased to announce the first annual paper competition for students, to be presented at the annual meeting in special student paper sessions next April at the AAG meeting in Phoenix, Arizona. The best papers will be printed in a proceedings volume. Best paper : \$100.00, second: \$50.00, further awards may be made depending upon the number and quality of entries..

Papers must be based on original work done as an undergraduate or graduate student, and the paper written entirely by the stated author. Short abstracts should be submitted to the organiser by September 15, 1987, and completed papers by December 31, 1987.

Please direct all enquiries and submissions to:
 Professor Bill Carstensen,
 Department of Geography,
 301 Patton Hall, Virginia Tech.,
 Blacksburg, VA., 24061.
 (703-961-5774)

PRESIDENT'S PRIZE WINNERS

At the annual meeting in Quebec, May 4-8, 1987, the following maps were awarded prizes from over 30 entries in several categories:

Monochrome*:

1. "La Cartographie des Stress Environnementaux au Quebec",
 by Nelson Boisvert, Linda Fraser, Pierre Gauthier, Claire Tremblay, (Universite Quebec/Chicoutimi).
2. "The Great 1950 Red River Flood of Winnipeg",
 by Ralph Carrier, University of Western Ontario.

* Two prizes were awarded in this category to reflect the number of entries and the contrast between individual hand drafted entries and productions supported by photomechanical production.

Printed map in color

1. For Technical Institute/individuals:
 "Bob Morane",
 by Sylvain Plante, Victoriaville, Quebec.
2. For University entrants:
 "California Population and Ethnic Distribution",
 by Greg Hanzel and Keith Ryden, California State University, Northridge, and Environmental Systems Research Institute, Redlands, California.

Best map in the media

"To cut or not to cut? Three central areas".
 by William R. Constable, in the Canadian Geographic Journal, Feb./March 1986.

BEST STUDENT PAPER AT THE ANNUAL MEETING:

Rod McNaughton (University of Western Ontario):
 "The making and use of maps by orienteers"

NORMAN L. NICHOLSON SCHOLARSHIP WINNER:

Derek Peddle (Memorial University of Newfoundland)



Judges Fraser Taylor, Michel Rheault and Alberta Wood check the rules for entries in the President's Prize competition

GIS

Low-cost GIS for micro-computers now being shipped.

IDRISI is a grid-based geographic analysis system that is designed to be an inexpensive research and teaching tool. Consisting of approximately 40 program modules distributed on 6 disks along with a 150 page manual, the system operates on MS-DOS and PC-DOS computers (Macintosh and VAX versions in progress). Although a hard disk is recommended, the system requires no more than 128k of memory, a dot matrix printer (Epson, IBM or DEC graphics compatible), and two floppy disk drives. Grid images of at least 750 x 32767 are supported with 128k (increasing to 10000 x 32767 with 640k). The system also supports both real and integer data types, both ascii and binary files, rectangular as well as square cells, and both metric and English linear and areal units. IDRISI is supported by the Harvard ROOTS digitizing package but also supplies full vector-to-raster conversion for other digitizing systems.

The primary intention of IDRISI is to provide a medium for experimentation in geographic analysis. By using independent modules linked to a simple data structure, the system allows users to develop their own modules in any computer language. To promote an exchange of new modules within the academic community, users also gain free access to the IDRISI electronic bulletin board system (a free copy of Kermit communications software is included).

IDRISI now also supports color:

IBM CGA: 320 x 200 x 4 colors or 160 x 100 x 8 colors

IBM EGA: 640 x 350 x 16 colors (from a palette of 64)

DEC Rainbow: 384 x 240 x 16 colors (from 4096)

Orders should be sent to :

IDRISI,
Graduate School of Geography, Clark University,
950 Main Street, Worcester, MA 01610, USA.

Disk formats available :

IBM DS-DD 5.25 inch

IBM / Toshiba / DG-One 3.5 inch

DEC Rainbow MS-DOS 5.25 inch

Operating Systems :

PC-DOS (for all compatibles)

MS-DOS (generic -- eg. for DEC Rainbow)

Price (in US dollars) :

Students : \$ 40 + 7.50 S&H

Academic / Research : \$ 70 + 7.50 S&H

General : \$ 100 + 7.50 S&H

A 20% discount applies to student copies ordered in class sets of 5 or more. For student orders, please send evidence of full-time status. For academic / research orders, please use letterhead. The IDRISI system is sold on an "as is" basis and prices are subject to change. Initial copies sold in 1987 will include a free 12 month update.

IDRISI



Author Ron Eastman (Clark University) and Idrisi display at the Quebec annual meeting, 1987.

GIS at the UNIVERSITY OF REGINA

The Department of Geography, University of Regina, has acquired Environmental Systems Research Institute of Canada's ARC/INFO geographical information system. In addition, PRIME Computer of Canada donated a new \$300,000 32-bit mini-computer to house the GIS and contributed additional software (including a CAD/CAM package). The system was installed in April 1987 and forms the basis for a new Spatial Analysis Laboratory in the Geography Department.

Faculty and Graduate student projects using the GIS have already begun involving studies of soil erosion, and land-cover and thematic mapping of southwestern Saskatchewan and the northern Yukon Territory. Dr. David Gauthier and Dr. David Sauchyn of the Geography Department are providing a series of training seminars to acquaint professional resource managers in government, industry and consulting positions in Saskatchewan with GIS and digital elevation model theory and applications.

For further information, contact:

Dr. David A. Gauthier,
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University of Regina,
Regina, Sask. S4S 0A2.
(Tel: 306-584-4154)

CORPORATE MEMBERS

GEOVISION AWARDED ROYAL AUSTRALIAN NAVY
DATABASE PROJECT

For Release: Monday, May 11, 1987



GeoVision Corporation of Ottawa, Canada today announced that its Australian subsidiary has been awarded a \$AUS 1.4 million (\$CDN 1.3 million) contract by the Royal Australian Navy (RAN) Hydrographic Service to supply a spatial information database system that will store and manage hydrographic survey information collected over 40 million square kilometres of ocean surrounding the Australian continent.

The new system, called HIS (Hydrographic Information System) will rationalize these survey data to support charting and to interact with other information systems. With the imminent implementation of digital seaborne and airborne automated sounding systems, the Hydrographic Service was faced with the challenge of finding new and efficient methods to handle the increasing volume and variety of data from the RAN and other national agencies.

The RAN Hydrographic Service has operated since 1920 and is responsible for hydrographic surveys, nautical charts, notices to mariners, tide tables, Navy meteorology, oceanography, and the Australian Oceanographic Data Centre. It has over 600 charts on program, and operates 3 survey vessels and an oceanographic ship.

"Once completed, the HIS will allow the RAN to provide comprehensive and current information to both civil and government mariners," said Captain John Compton RAN, the Australian Hydrographer. "With this database, the RAN will no longer view contents of a hydrographic survey as simply the basis for chart production. The flexibility of the HIS software will permit the incorporation of associated information such as chart boundaries and lighthouse, buoy and beacon lists."

"HIS is the most comprehensive and sophisticated application of geographic information systems technology in the hydrographic field that we're aware of," remarked Doug Seaborn, President of GeoVision, "We will be blending our system management and computer graphic skills with the hydrographic information management expertise of the RAN staff to create new and exciting opportunities to use information about our oceans."

Based upon GeoVision's Geographic Information System, (GIS), HIS is customized software developed to Navy specifications. The system will be implemented on latest generation equipment including Hewlett-Packard's 9000 series, model 840 computer on a Local Area Network, with Digital Equipment Corporation GPX workstations, equipped with GeoVision's interactive mapping software. The RAN Hydrographer will be able to compare and consolidate overlapping hydrographic surveys on various horizontal and vertical datums and to selectively extract charting data to use in RAN's Autochart system, supplied by GeoVision in 1979.

For further information, please call:

GeoVision, Canada

Anita Stewart

(613) 722-9518

CORPORATE MEMBERS

INTERGRAPH is pleased to announce MICROSTATION, combining the convenience and low cost of standalone CADD with the full range of capabilities provided by the Intergraph Interactive Graphics Design Software (IGDS). MICROSTATION is a full power, entry-level micro-CADD package. MICROSTATION runs on Intergraph workstations, IBM PC-AT's, IBM PC-XT's, and compatibles. It features full compatibility with IGDS, the core software of all Intergraph VAX-based systems.

MICROSTATION delivers a major subset of Intergraph's VAX-based IGDS capabilities, including a menu driven user interface, 2D and 3D databases, more than 200 commands for generating and editing data, and support of a full range of input and output devices. Up to 32 reference files can be attached to the active file for scaling, rotating, or clipping.

All MICROSTATION file formats - design file, cell library, font library, user commands (macros), etc. - are identical to those used in IGDS, permitting simple file transfers between the PC and VAX-based system and eliminating the problems associated with the file translations.

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MICROSTATION features a user-definable 32-bit database with over 4 billion addressable points in each axis, making it ideal for creating high-precision architectural drawings, mechanical designs, engineering drawings, maps, and other drawings and designs.

MICROSTATION also features dynamic update, which continuously displays the element, while it is being placed or modified. Dynamic update is a generalization of the rubber band line placement mode offered by many CADD packages. This visual feedback technique, allows the operator to see all of the characteristics of element (color, size, etc) before it is placed, minimizing placement errors and time-consuming corrections.

MICROSTATION supports IBM PC/XT and IBM PC-AT personal computers, and compatibles, using PC DOS 3.0 or later. Intergraph recommends the PC-AT or compatible. In addition MICROSTATION requires the following:

- o 640K Random Access Memory (RAM)
- o Hard Disk, 10 Mbyte minimum, larger capacity preferred
- o Floating Point Coprocessor
- o Communications Port (1 or 2, depending of configuration)

MICROSTATION is also available for Intergraph's full range of workstations. For information please contact:

Intergraph Systems Ltd.
Workstation Marketing Department
3115 12th Street N.E.
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Phone: (403) 250-6100

OR
Intergraph Systems Ltd.
Workstation Marketing Department
2580 Matheson Blvd.
Mississauga, Ontario L4W 4J1
Phone: (416) 625-2081

INTERGRAPH

NEW PUBLICATIONS

THE CHORLEY REPORT.

The Report of the UK government Committee of Enquiry into the Handling of Geographic Information. (The Chorley Report) This Committee was set up in April 1985 with the following terms of reference:

"To advise the Secretary of State for the Environment within two years on the future handling of Geographic Information in the United Kingdom, taking account of modern developments in information technology and of market need".

The Committee's final report is entitled 'Handling Geographic Information' and is available from May 8th from Her Majesty's Stationery Office, PO Box 276, London SW8 5DT, UK; it is priced at 14.95 pounds sterling (ISBN 011 752015 2). Its 216 pages cover the use of geographic (i.e. all spatial) information at present, the factors influencing the use of such data, and what should be done by government and other parties in industry, commerce and education to exploit the very rapid technical developments now under way. Different sections cover OS digital mapping; the availability of all types of spatial data; the need for education and training and for research and development; and the role of government and the machinery for coordination.

The report, based upon evidence from 400 organisations and numerous consultations, thus spans a very wide area of interest to land surveyors, computer scientists, earth scientists, social scientists and administrators as well as to geographers. I think you will find the synthesis of interest and the various recommendations of value, not least in your organisation. Though most of the report is oriented towards the UK situation, it incorporates experience of developments in Canada, the Netherlands, Japan and elsewhere: one appendix, for instance, contains a summary of North American developments in Geographical Information Systems compiled by Tomlinson Associates.

Since lack of awareness of what is now possible has been identified in the Chorley Report as a major problem, a VHS video has been made to introduce the major applications of geographic data handling. This has been sponsored by ICL and is designed for senior managers who have no knowledge of GIS. Finally, an eight page multi-colour brochure which sets out the importance of the technology and its applications has been produced for general distribution; this has been sponsored by the Post Office. Copies of both of these products - each also called 'Handling Geographic Information' - are available on request from either:

Ordnance Survey,
Information Branch,
Romsey Road,
Maybush,
Southampton
SO9 4DH, UK.

The Postcode Unit,
The Post Office,
33, Grosvenor Place,
London SW1X 1PX,
UK.
Tel. 01-245-7977

A NEW ENVIRONMENTAL ATLAS

The Great Lakes, an Environmental Atlas and Resource Book, was published in the spring of 1987 by Environment Canada and the United States Environmental Protection Agency. It comprises twelve full-colour map plates of the Great Lakes Basin bound with a descriptive text, and a separate folio map sheet measuring 48 by 36 inches folded in a back pocket. The maps cover a wide range of topics, physical and human, and together comprise a visual geography of the Basin.

The maps were produced over an 18 month period by a team of three at Brock University in St. Catharines, Ontario. The cartographic editor was Alun Hughes of the Department of geography, and the cartographers were Loris Gasparotto and Peter Brown of the Departments of Geography and Geological Sciences respectively. Principal authors of the publication were Bruce Krushelnicki of Brock's Institute of Urban and Environmental Studies and Lee Botts of the Center of Urban Affairs and Policy Research at Northwestern University.

The atlas is available at no charge from either of the following;

In Canada: Conservation and Protection (Ontario region), Great Lakes Environment Program, Environment Canada, 25 St. Clair Avenue East, Toronto, Ontario, M4T 1M2.

In the USA: Great Lakes National Program Office, US Environmental Protection Agency, 230 South Dearborn Street, Chicago, IL 60604.

PROCEEDINGS: SECOND INTERNATIONAL SYMPOSIUM ON SPATIAL DATA HANDLING, SEATTLE, JULY 1986.

The 600 page proceedings are now available; almost 50 technical articles include sessions on Quadtree Representations of Spatial Data, Automated Name Placement, Storage and Accuracy of Digital Elevation Models, Relational Database approaches to GIS, and Expert Systems for Spatial Data.

The cost is \$40.00 (U.S.); a \$5 discount is allowed if a check drawn on a US bank is enclosed with the initial order. Shipment outside North America is extra. Send orders to:

IGU Commission on Geographical Data Sensing and Processing, Post Office Box 571,
Williamsville, NY 14221, U.S.A.
(716-688-4281)

1984 PROCEEDINGS

Copies of the Proceedings of the First International Symposium on Spatial Data Handling (1984) can be obtained at a cost of \$30 (US) surface, or \$40 by air from:

Prof. Kurt Brassel, Geographisches Institut,
Universitat Zurich-Irchel, 8057 Zurich, Switzerland.

OUR MAN IN JAKARTA

The occasion is a Canadian Embassy Sponsored REMOTE SENSING TECHNOLOGY SEMINAR on the 26th of February at the luxurious BOROBUDUR INTERNATIONAL hotel. The local venue too, looked far removed from the hurly burley of the third world street society that rages on outside. It was a seminar for Canadian entrepreneurs of hardware, software and all kinds of services, from survey flying to laser hydrographic surveying. The objective was to inform the Indonesian mapping and geographical establishment on the latest wares from the Canadian Remote Sensing and Geographic Information Processing Industries.

Short, but exciting, papers were delivered in a polished and well illustrated manner on geographic information management problems, integrated systems from digital imagery to vector geographic information systems, resource analysis modeling, hybrid systems, airborne lasers, and side looking and synthetic aperture radar technology, in all sorts of large and small (expensive and inexpensive) systems. All the technological stops were taken out and the overall effect of the seminar was absolutely dazzling. CCA Institutional and corporate membership was well represented in that Geovision, through its associate company Tydac Technologies, and PAMAP Graphics were there. Other well known organizations and companies, that should be corporate sponsors of the CCA, were also there. These include the Canada Centre for Remote Sensing, Digim Inc., PCI Inc., Dipix Systems, MacDonald Dettwiler, Gregory Geoscience, Terra Surveys, Canadian Astronautics, Intera Technologies, and Bercha Associates.

Opening remarks were delivered by the Ambassador Jack Whittleton and the first Secretary, Donald Cameron. Welcoming addresses and thank you notes were given on behalf of the Indonesians by Prof. M.T. Zen and Prof. Jacob Rais of the BAKOSURTANAL.

Calgary's Intera Technologies has a substantial branch office in Jakarta and there was a most interesting field trip there to meet their staff and see first hand the results of their operations in Kalimantan (Borneo). I was invited to the conference by Jakarta personnel of the E.M.D.I. project (Environmental Management and Development Indonesia) of Dalhousie University, an offer that I was pleased to accept. By doing so I learned of a new university sub-culture that reflects most clearly the discombobulation of geography in Canada. This electronic mail link is provided, for instance, by the

Environmental Management program at the University of Guelph, and communications on the conferencing system indicate schools of environmental management at Waterloo, Guelph, Dalhousie, and York. These, and other Canadian institutes receive and share funding incentives from several government agencies, of several countries, and they have at least two programs here in Indonesia.

Not surprisingly, one of the pressing interests of these institutes is computer cartography and geographic information processing. Well, they do not seem to be re-inventing the field, but rather they seem to want it on a floppy disk. Perhaps, soon, they will be able to get it. I was asked to comment on some of the presentations. I couldn't help but notice the gulf of information flow between these new institutes and geography, which supposedly has has a long and vested interest in topics of environmental management, and it seems to me that those of us in traditional geography departments may be missing the boat.

The remote sensing and the hi-tech interests of the CANADIAN REMOTE SENSING TECHNOLOGY SEMINAR also illustrates a gulf where these fields are surely being taken over by engineering schools which have no relation with geography. They used to be discrete and name their systems "land information systems", or "digital imaging systems", etc., but now this inhibition is gone and the term "geographic information systems" is widely used. It forces a geographer to contemplate the future of the departmental structure of the discipline, a discipline itself recognized to be at risk by a disturbing paragraph on this year's renewal notice of the American Association of Geographers.

There are two views of geography. One is that of the International Geographic Union which sees of geography as an umbrella under which such disciplines as surveying, cartography, remote sensing, photogrammetry, etc., etc are united. The other view is that geography is a specific department that contains geomorphology, human geography, historical geography, etc., that sits like a wart on the rump of some or other arts faculty. The former view would, of course, allow for the orderly integration of new interests as institutes and departments into geography. These would include "regional development" of the fifties, "urban and regional and planning" of the sixties, "resource management" of the seventies, and "environmental programs of the eighties", into the whole of geography to join the traditional fields of surveying and mapping, geology and all the 'graphies such as oceanography, as well.

It is not so much a thought about a mere organizational structure as the absence of it in Canada which has seriously fragmented development and mutual respect of people working in, for instance, cartography as a sub-section of geography departments with those who work making maps at the low end of the totem pole in a civil engineering school. This is what is at the root of the Canadian problem of representation in the International Cartographic Association, and this is what has led to the almost perpetual re-invention of computer cartography, digital image processing, and geographic information processing by people who were entirely unaware of bodies of literature existing and lost as the work of minor elements of engineering and humanities faculties.

It is here where we can learn from the Indonesians. At Gadjah Mada University, for instance, Geografi is a Fakultas with a dean, and has Jurisans (Departments) which have chairmen. It is at the Department level where the traditional subdivisions of Canadian geography (geomorphology, human geography, etc.) sit equally with remote sensing, cartography, and regional and population planning, etc..

Speaking of meeting people in a remote place like this, Yogyakarta Indonesia, while I was president of the Canadian Cartographic Association I had frequent contact with Dr. Ferdinand Ormeling of the ITC who was president of the International Cartographic Association. One of the first things I did here in Indonesia was read a memorial issue of the Indonesian Journal of Geography, dedicated to the memory of former Dean Kardono. In it there was a fairly detailed article of the history of the discipline of geography in Indonesia. I learned from it the fascinating fact that Ferdinand Ormeling was the director of Geographical Institute of the Topographical Service from 1948 to 1955. That must have been an exceedingly difficult time period for it was the time the Indonesians threw the Dutch out as colonial masters. Since Ormeling, with notable success, held this post through and long after the end of the colonial period testifies to his incredible diplomatic skills which he subsequently exerted for many years as president of the ICA.

Ormeling got his doctorate in geography at the University of Indonesia shortly after. Other names of interest to cartographers of those who have played important roles in Indonesian geography are S. van Valkenburg, the first to hold the post of geographer with the Topographical Survey, A.J. Pannekoek, who held it immediately after, and Herman Th. Verstappen who joined the expatriate staff of the Institute in 1949. Verstappen was also instrumental in the founding of the Jurusan Geografi at Universitas Gadjah Mada in the early fifties, while Ormeling taught at the University of Indonesia at the same time. Both have long since left Indonesia, but Verstappen is back right now on a short visiting program supported by the same program that brings me here, the MUCIA World Bank Education Project IX. I was most pleased to have met him.

David Douglas

OPPORTUNITIES AVAILABLE

Do you take Cartography seriously? Join Canadian Cartographics Ltd.

Canadian Cartographics Ltd., a thematic cartography consulting office in Coquitlam, British Columbia, needs senior cartographers to manage the production side of its operation and to look after marketing. Suitable candidates will be expected to become partners in the firm and take on other responsibilities.

Canadian Cartographics Ltd. has been in active business since 1973 providing thematic cartography services, including research and design as well as production and printing services, to federal and provincial government departments, regional and local governments and private sector organisations. Since 1983, the firm has been placing increasing emphasis on publications of its own "popular" maps, i.e., street and recreational guides. We currently have four maps published, twelve maps in varying stages of completeness and a major innovative mapping concept well past the R & D stage.

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508 Clarke Road,
Coquitlam, B.C., V3J 3X2.
604-936-8544.

Department of Geography, University of Minnesota, Cartographer and Director, Cartography Laboratory.

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Other duties: occasional instruction, equipment maintenance, technical representation of the department with publishers and printers.

Minimum qualifications: 3 years experience managing a cartographic lab., demonstrated skills in design and production, photography and ability to acquire external contracts. Preferred: 5 years experience managing a lab., experience in an academic institution, background in computer mapping.

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Send application, CV, three references, and samples of cartographic work, by October 2, 1987, to:

R.H. Skaggs, Chairman, Department of Geography,
University of Minnesota, Minneapolis, MN 55455.

ICA NEWSLETTER



EDITORS: R.W. Anson / Oxford Polytechnic / Oxford OX3 0BP / United Kingdom
 B.V. Gutsell / Winters College, York University / Downsview M3J 1P3 / Canada

Number 9, June 1987

Executive Committee News

The 5th meeting of the Executive Committee (EC) was held in Dehra Dun, India on January 21, 22 1987. The Survey of India, under the leadership of Surveyor General and ICA Vice-President Maj. Gen. Agarwal, was the host for the meeting and provided excellent hospitality. The EC enjoyed the beautiful weather of India in January and the fine facilities of the Survey of India.

The meeting was supplemented with a seminar covering Cartography and the Future with papers presented by J. Morrison, D.R.F. Taylor, F.J. Ormeling, D.T. Pearce and Maj. Gen. Agarwal. A large audience represented cartographers from across India.

Lengthy discussion took place regarding the new proposals for the composition of commissions and working groups and the general operations of existing groups. Vice-President D. Rhind agreed to prepare a full explanation of the new proposals for all member countries. It was agreed that the prefix 'Ad-Hoc' should be deleted and only the terms Standing Commission, Commission and Working Group should be used in the future.

Reports were received from committees previously established to examine New Member categories, Statutes and By-Laws, and Services to ICA member countries.

The report on New Member categories was generated by complications with applications for Affiliate membership. The report recommends 3 categories: a *Scientific Bodies*, including academic and research institutes, both governmental and private that are users of cartographic data; b *Scientific Bodies of International Character*, including academic/research institutes that are multi-nationally funded and are purely scientific in character; c *Other Organizations*, including organizations which are engaged in development/production and are manufacturing cartographic tools, machinery and products. The subscription fee recommended for categories a and b was 4 units and for category c 10 units.

Changes to the Statutes and By-Laws submitted by a committee chaired by Dr. C. Board (UK) and additional changes proposed by the Hungarian national committee were addressed individually. At least 18 changes to the Statutes and three By-Laws were approved by the EC. The proposed amendments will be circulated to all member countries prior to the General Assembly.

The third report recommended some new services to member countries, the full list being as follows:
 By-Law 6

ICA Member nations and Affiliates as described under By-Law 5 shall be entitled to the following

services:

- 1 Invitation to all ICA Conferences;
- 2 One free copy of all ICA publications including the Newsletter;
- 3 Free copies of National Reports presented at ICA Conferences. Free copies of the published collection of presented conference papers when made available, posted to Members and Affiliates unable to be present at the Conference;
- 4 Free subscription to one cartographic journal of international repute. A choice is offered between: *Bulletin du Comité Français de Cartographie* (France); *Cartographica* (Canada). Member countries are to be encouraged to establish exchange agreements for their journals or bulletins.
- 5 Upon request, ICA may assist in sponsoring conferences, seminars and symposia in member countries and the countries of affiliate members and: a make a small financial contribution conditional upon due recognition being provided to ICA; and/or b support attendance and participation by senior officers of ICA, e.g., President, Secretary General and Treasurer or a Vice President.
- 6 From time to time as the need is demonstrated and finance is available, ICA may mount basic training courses.
- 7 Preferential treatment in exhibitions of ICA vis-à-vis other non-member exhibitors/manufacturers.

The future of a number of publications was discussed and it was reported that satisfactory arrangements have now been made to complete *Basic Cartography* Vol. 2, hopefully in time for the Conference in México. A prolonged discussion was held on the future of the *Multilingual Dictionary* (2nd edition) which is still in an incomplete and unsatisfactory stage despite attempts by the EC to resolve it. It was decided to investigate publication of two volumes: 1 a multilingual dictionary in five languages, and 2 a book providing equivalent terms in other languages for those terms defined in the five-language dictionary.

The ICA has continued to press for membership on international bodies such as ICSU, UN and UNESCO and the necessary support is being sought. (See item 'Preliminary approval for consultative status with ECOSOC granted ICA').

Discussion also took place regarding an adequate definition of Cartography. A special session of invited papers will be organized at the Conference in Morelia with a view to preparing a new definition.

Executive Committee 1987-1991

Nominations are required for all positions on the Executive Committee for the period 1987-1991. These should be in the hands of the Secretary by July 31.

The current composition of the EC has represented the widest international viewpoint in the history of the Association. Up until 1984, Eastern and Western European and Anglo-American cartography were the main areas of influence in ICA; since then, the enormous regions of Asia and China have been represented in the Executive Committee and have made valuable contributions through their representatives. It is hoped that this influence will continue during the next period. *D.T. Pearce/May 1987*

PRELIMINARY APPROVAL FOR CONSULTATIVE STATUS WITH ECOSOC GRANTED ICA

ICA President, Joel L. Morrison, appeared before the Committee on Non-Governmental Organizations on February 25, 1987, at UN Headquarters in New York City. The Committee on Non-Governmental Organizations formally considered ICA's request that ICA be granted Category II status. The favorable recommendation from the Committee in Non-Governmental Organizations, that ICA be granted Category II status, will be examined and acted upon by the full Economic and Social Council at its meeting in May 1987.

Consultative status with the Economic and Social Council of the United Nations (ECOSOC) serves as official recognition by ECOSOC of ICA and will facilitate further consultations between ICA and ECOSOC. We eagerly await the final action of ECOSOC so that ICA can officially be recognised as a body with special competence that can assist ECOSOC and/or its subsidiary bodies in carrying forth its mission.

VICE-PRESIDENT TAYLOR VISITS CHINA

During the month of April, 1987, Dr. D.R.F. Taylor, Vice-President of the ICA, visited China at the invitation of Professor Guo Jun, Deputy Rector of the Zhengzhou Institute of Surveying and Mapping and Chairman of the Cartography Committee of the Association of Surveying and Mapping of China. Professor Taylor had the honour of being the first foreign guest ever to be invited by the Institute which is responsible to the General Headquarters Staff Surveys and Mapping Bureau in Beijing. Professor Taylor gave a series of lectures and seminars and held discussions with some of China's leading cartographers on recent cartographic developments in China. Visits were also made and discussions held with senior staff members of the X'ian Research Institute of Surveying and Mapping, and the Shansi Provincial Bureau of Surveying and Mapping. In Beijing Professor Taylor held discussions with the Editor and Deputy Editor in Chief of the Cartographic Publishing House and with the Director and Head of the recently established Laboratory of Resource and Environment Information Systems of the Institute of Geography, Chinese Academy of Sciences. Professor Taylor's trip was made possible by a research grant from the newly established UCAP program jointly funded by the Canadian Commission for UNESCO and the Canadian International Development Agency. While in the far east Professor Taylor also accepted

an invitation by the University of Hong Kong to give a public lecture and visited Nagoya, Japan to give lectures and seminars at the invitation of the United Nations for Regional Development.

Reports of ICA Commissions & Working Groups COMMISSION ON ADVANCED TECHNOLOGY

The Commission on Advanced Technology (CAT) met in London, England on 16 and 19 September 1986 in conjunction with Auto Carto London and on 22 through 24 September in conjunction with the ICA Executive Committee meetings in Prague, Czechoslovakia. Dr. K. Eric Anderson in the chair and Mr. Andrew V. Douglas serving as Secretary.

During the Commission's first session in London, former Chairman Lowell Starr addressed the attendees. Mr. Starr thanked his friends for their support over the years, and asked all members to give their support to the new Chairman, Dr. Anderson.

In both London and Prague, the Commission addressed the following agenda items: the forthcoming report on international research and development in computer-assisted cartography; CAT contribution at ICA General Assembly in 1987; and the future of the Commission on Advanced Technology.

Dr. Anderson clarified the goals of the report on international R & D. Our goal is to provide a well-rounded report on a broad base of international activities in advanced cartographic technology research and development. To reach that goal, we have devised a much enhanced format for the report.

We hope to produce a significantly expanded report organized into two sections. Section 1 will be a set of invited essays on such topics as map generalization, pattern recognition and mass digitization, data structures, standardization, organizational aspects of modern cartography and relief representations. The authors will strive to be innovative, futuristic, imaginative and to address gaps in current cartographic knowledge. Section 1 will set the scene for Section 2 by establishing the international context of computer-assisted cartography - where we are and where we need to go with research and development.

Section 2 will document the activities of the international cartographic community. This section will contain reports from member countries. Our primary goal for Section 2 is to receive reports from as many member countries as possible. Many cartographers are interested not only in the most innovative research, but also in the different ways in which member countries are approaching computer-assistance as an R & D activity. We have surveyed all member country delegates. Some principal authors have been identified, and as of this writing, initial contributions to the report have already been made by Austria, the People's Republic of China, Poland, Indonesia, Malaysia, New Zealand, Japan, Hungary and Czechoslovakia. While in Prague, the Commission met with the ICA Executive Committee. Dr. Anderson presented an overview of CAT activities and the current status of our Terms of Reference. He also mentioned the successful CAT-sponsored sessions at Auto Carto London. Dr. Anderson outlined

our plans for cooperative activities with the Commission on Training and Education, our plans to conduct seminars on advanced technology, and our difficulties in determining how to handle the Geographic Information Systems issue. These and other issues will be on our minds as we formulate our Terms of Reference for 1987-1991.

Andrew V. Douglas/ 13 March 1987

(EDITOR: this was the only report received from any of the 14 commissions and working groups).

Reports of Meetings and Seminars

12TH SESSION OF THE UN GROUP OF EXPERTS ON GEOGRAPHICAL NAMES, Geneva, 28 September - 7 October 1986

At the United Nations office in Geneva, the 12th session of the UN Group of Experts on Geographical Names was held in the shadow of the forthcoming 5th UN Conference on the Standardization of Geographical Names (Montréal, August, 1987). As former, similar UN conferences have contributed a great deal to the simplification of the editorial work of cartographers where it concerns geographical names, it is relevant to note what contributions (in the form of recommendations) can be expected.

Under the chairmanship of Prof. dr. D. Blok (Netherlands), with Dr. M. de Henseler (Chief, Cartography Unit, UN Dept. of Technical Cooperation for Development) for secretary, and Mr. A. Rayburn (Canada) for rapporteur, the tableau to be presented at Montréal unfolded as follows.

Toponymy has been established as a subject for teaching, as 1 a manual for national name standardization programs is developed, intended primarily for use in Third World countries, 2 a multilingual glossary of toponymical terminology has been compiled, 3 teaching experience has been gained during training courses in toponymy (in Cisarua, Indonesia and Rabat, Morocco) and 4 standard syllabi for such courses are being prepared. So the cartographic community is able to profit from these achievements of the UNGEGN, as it is feasible with these instruments to incorporate toponymy in regular cartographic education. A list of existing or proposed toponymy courses will probably be prepared for Montréal. Mr. Absaloms from Kenya proposed to have the next toponymic training course in Nairobi, Kenya, in cooperation with the UN Economic Commission for Africa.

The computer-assisted production of national gazetteers has benefited from the exchange of information the UNGEGN forum provides. In various countries data bases have been created for geographical names; applications relevant to cartographers, such as automated type setting or automated toponymic transliteration were discussed. Computer-produced gazetteers can be easily revised and the microfiche gazetteer of Great Britain, which is frequently updated, has achieved wider sales than expected. The UNGEGN experts were invited to report regularly on the progress made in their work with digital name files. As a matter of fact, standardization has been boosted enormously by the advent of geographical informa-

tion systems.

More than twenty countries have now produced their Toponymic Guidelines, a publication meant for cartographic editors and others. This publication shows the special characteristics and requirements of geographical name orthography for specific language areas or countries. They refer the reader to official name sources such as maps and gazetteers and they show boundaries of minority language areas, where different orthographic rules might apply. They also contain glossaries of the descriptive elements contained in toponyms. As the UN developed a publication program for these toponymic guidelines, the relevant information is being made rapidly available to the cartographic world.

New standard romanization systems for Greek, Cyrillic and Arabic alphabets will probably be presented for adoption at Montréal, and the Donor principle (which refers to the recommendation that the country which incorporates the named objects should decide on the transcription system to be used for representing the names in foreign writing systems) be refined. This is done in the sense that, within the margin provided by linguistic and onomastic principles, user organizations, i.e., receiver countries, should be involved as much as possible in the elaboration of such systems.

Two other issues that will be pursued at Montréal are the reduction of exonyms (in order to improve international communication) and the desire to differentiate toponymic information from descriptive information on topographical maps, by differences in type style or type face. Which one it is to be will be worked out in Montréal in the form of a recommendation. In order to profit most from the four conferences held until now, a list of resolutions adopted was circulated at Geneva: it will even be indexed for Montréal.

UNEGN and ICA conferences have one thing in common: The participants are activated immediately, as soon as somebody distributes copies of a map, in order to demonstrate a point. It proves that, even without standardization, cartography is a universal language.

Ferjan Ormeling/March 1987

11TH UN REGIONAL CARTOGRAPHIC CONFERENCE FOR ASIA AND THE PACIFIC 1987

Thirty-four nations and seven international scientific organizations and agencies sent representatives to the 11th UN Regional Cartographic Conference for Asia and the Pacific which was held at Economic and Social Commission for Asia and the Pacific (ESCAP) headquarters in Bangkok, Thailand, January 5-16, 1987.

Mr. S.A.M.S. Kibria, Executive Secretary for ESCAP, inaugurated the Conference and welcomed the participants on behalf of the Commission. Mr. Max de Henseler, the Executive Secretary of the Conference, read a message of welcome on behalf of Mr. Xie Qimei, Under-Secretary-General, Department of Technical Cooperation for Development (DTCD).

H.R.H. Princess Maha Chakri Sirindhorn honoured

the Conference by her attendance at a special plenary session held on January 12.

The Conference elected the following officers:

President: Lt. Gen. Vichien Sungpriwon (Thailand)

First Vice-President: Mr. Takahiro Sato (Japan)

Second Vice-President: Mr. Chen Junyong (China)

Rapporteur: Mr. Vic North (Australia)

The Conference was divided into four primary areas of cartographic activity: data acquisition and supporting activities; data manipulation; data depiction; and policies and management of national mapping and charting programs. A technical committee was established for each of these subject areas. The following individuals were elected to head the four technical committees:

Committee I Data Acquisition

Chairman: J. Rais (Indonesia)

Vice-Chairman: G. Andreassend (Hong Kong)

Rapporteur: Bentley E. Furmstron (UK)

Committee II Data Manipulation

Chairman: Lowell E. Starr (United States)

Vice-Chairman: Won-Ik Kim (Republic of Korea)

Rapporteur: Ray Cole (Australia)

Committee III Data Depiction

Chairman: G. Konecny (FRG)

Vice-Chairman: Nikolai L. Makarenko (USSR)

Rapporteur: Asfaw Fanta (Ethiopia)

Committee IV Management of National Mapping and Charting Programs

Chairman: Jose Solis (Philippines)

Vice-Chairman: Leong K. Kwoh (Singapore)

Rapporteur: S.M. Chadha (India)

A background paper in each subject area was prepared by the observers from the international scientific organization. For Cartographic Data Acquisition and Supporting Activities the background paper was prepared by ISPRS and presented by the ISPRS President Dr. Gottfried Konecny. Fifteen additional papers were presented under the subject heading. The ICA was privileged to prepare the background paper on Cartographic Data Manipulation. The paper was presented by ICA President Dr. Joel L. Morrison. Nineteen additional papers were read under the subject heading.

The background paper for Cartographic Data Depiction was prepared by Dr. J. Zarzkycki, of ISPRS. Unfortunately, no other papers were submitted under this heading and only 8 papers were submitted under the topic, Policies and Management of National Mapping and Charting Programs. The background paper was provided by Mr. C.W. Youngs of FIG.

Twenty-three resolutions were adopted by the Conference. These resolutions cover a wide range of topics of interest to cartographers. Of most interest to ICA was the resolution that recommended that the United Nations Department of Technical Cooperation for Development cooperate in the preparation and organization of a proposed 1st Union Congress of IUSM to be held in 1992. The text of all the resolutions will be part of the final report to the Conference available from Mr. de Henseler's office at the UN in New York later this year.

The 12th UN Regional Cartographic Conference for Asia and the Pacific will be held in 1991.

EURO CARTO VI MEETS IN BRNO CZECHOSLOVAKIA

The sixth conference in the EURO CARTO series was held April 13 - 16, 1987, at the International Hotel in Brno, Czechoslovakia. The conference was successfully and expertly organized by Doc. RNDr. Milan Konecny of the Department of Geography, Faculty of Sciences, J.E. Purkyne University, Brno. Over 150 attendees from 20 nations, including Brazil and China, heard over 30 professional papers and enjoyed the informality of a poster session. Proceedings of the conference were prepared and distributed to the participants.

A full social schedule accompanied the conference. The famous Janacek quartet played during the formal opening of the conference, and attendees enjoyed a reception hosted by the J.E. Purkyne University at the House of Recreation where most attendees stayed. A tour of the Geographical Institute of the Czechoslovak Academy of Science collocated at the Mendelian Museum was enjoyed by all.

EURO CARTO VI, the first in the series to be hosted in eastern Europe, enabled a larger attendance by East European cartographers. The informal transfer of cartographic research that was thus enabled insured the usefulness of the conference. The ICA especially thanks Doc. RNDr. Konecny for his fine organizational talents and also thanks his colleagues in Brno for making the EURO CARTO VI Symposium a huge success. EURO CARTO VII has tentatively been set for late 1988 in Enschede, The Netherlands.

PROCEEDINGS OF THE 2ND INTERNATIONAL SYMPOSIUM ON SPATIAL DATA HANDLING

The *Proceedings* of this international symposium are now available and contain nearly 50 papers in a 600-page volume. Included, among others, are papers from sessions on 'Quadtree Representations of Spatial Data', 'Automated Name Placement', 'Storage and Accuracy of Digital Elevation Models', 'Relational Database Approaches to GIS', and 'Expert Systems for Spatial Data'.

The cost of the *Proceedings* is us\$40, including handling and shipping by surface transport. Shipment by air to points outside North America is available at extra cost. If shipment by air is requested, the additional shipping costs will be added to the invoice.

Orders should be addressed to: ICG Commission on Geographical Data Sensing & Processing, P.O. BOX 571, Williamsville, NY 14221, USA.

Publications Committee News

SPRING MEETING IN AMSTERDAM

The Spring Meeting of the ICA Publications Committee was held on 10 April 1987 at Elsevier Science Publishers, Amsterdam, The Netherlands. The host for the meeting was Drs. H. Frank, Director of the Science and Technology Division, who attended together with representatives from Geo Books,

Norwich, England, an Elsevier subsidiary, viz., Linda Martin, Ian Wood and J. Grijpma. Geo Books will act as the official distributor of ICA Publications; already, the company has produced a new promotional leaflet for ICA and is working on production of their first ICA publication – the *Compendium of Cartographic Techniques*.

Items discussed included the revised PC *Rules of Procedure*, designed to streamline the production of reports from Commissions and Working Groups, the Newsletter, which continues to make progress in its distribution among member countries, and the report of a meeting between Chairman Roger Anson and Drs. H. Frank in November 1986. The agenda for this meeting detailed specifics concerning the distribution and production of current and future ICA publications.

The main items of business at the PC meeting included a discussion on sales and distribution with Drs Frank and the representatives from Geo Books, the transfer of ICA stock from Rudolf Muller, International Booksellers to Elsevier on 14 July 1986, and the progress of the several publications – *Basic Cartography*, vol. 2, *Exercises to Accompany Basic Cartography*, *Thematic Mapping/Remote Sensing Report*, *Cartographical Innovations*, and the *Compendium of Cartographic Techniques* (see below). Dr. Morrison presented a detailed report on the Executive Committee discussion of the Multilingual Dictionary revision, and on the report R & D in Computer-assisted Cartography. R. Böhme outlined his progress on an Inventory of World Topographic Mapping that may be published by ICA in the future.

Chairman Roger Anson and President Morrison both thanked Drs. Frank for hosting a successful and productive meeting and for providing a most excellent luncheon. Don Pearce announced that a banquet would be held during the evening to honour Rudolf Muller.

Compendium of Cartographic Techniques

Commission II, Map Production Technology, is making good progress towards the completion of the *Compendium of Cartographic Techniques*. The work is being coordinated and carried out in Canada. Australia is assisting by producing 20% of the line-drawings, and the United States (Commission III, Advanced Technology) is producing one of the three chapters on computer-assisted techniques.

The *Compendium* is a compilation of some 120 practical descriptions of commonly-used map production techniques. Subjects range from line drawing to scribing, and include color proofing, reproduction techniques and printing. Several chapters deal with digital aspects of map production. The volume is profusely illustrated with 175 diagrams and 50 photographs.

The subjects for the *Compendium* have been written in ten different countries, and all the texts have been standardized to ensure that the book will have wide international application and appeal. The complete manuscript is being forwarded to the ICA

Publications Committee in May 1987 for the anticipated publication by Elsevier Science Publishers, Amsterdam, The Netherlands.

Cartographical Innovations: An International Handbook of Mapping Terms to 1900.

The volume, edited by Helen Wallis and Arthur H. Robinson, is intended as a reference book for all those working in the history of cartography and also for modern cartographers who may be interested to see that many of the techniques employed today originated a century or more earlier than is generally thought. Scholars from many parts of the world have helped with the project which has been undertaken by the ICA Commission on the History of Cartography.

The Glossary comprises a history of cartographical innovations and their diffusion. It includes information about when processes and techniques began, when materials were first used, and in general indicates on a worldwide scale the main points of advance in the science and art of cartography. For each term a definition is given, followed by the main facts in the history of the innovation or technique, and completed by a bibliography. A comprehensive and innovative index is also provided to guide the reader. The Glossary adds the dimension of time to the technical aspects of map-making. It also reveals something of the essential nature of cartography by setting out in simple outline the history of the ideas that led to the practical advances.

The book is to be published by: Map Collector Publications (1982) Ltd, 48 High Street, Tring, Herts HP23 5BH, England. Copies will be available in June 1987. Price: £42.00 (excluding postage and packing).

International Report on Thematic Mapping from Satellite Imagery

This comprehensive report has been prepared over a 3-year period by members of the Ad-Hoc Commission on Thematic Mapping from Satellite Imagery and was submitted by J. Denègre and J.P. Grelot. Its purpose is to show the variety of thematic applications from satellite imagery and their cartographic expressions. A total of 33 applications are described from 18 different countries, 10 of which are Third World countries. Each application is described on the basis of its objective, its methods and its results, and is illustrated by a map either in colour or black-and-white. The text is in both English and French, the official languages of the Association.

The applications have been selected, as far as possible, as *operational*, and are classed into 12 topics according to the classification identified by the former Ad-Hoc Commission. Their description is also completed by statements on national requirements for thematic mapping derived from satellite imagery.

The report includes 190 pages of text ready to print, 15 coloured maps with their colour separation films, 12 coloured maps without colour separation films, and 6 line maps in black-and-white.

The possibility of its production and publication was discussed at some length with Drs. Frank.

Exercises relating to Basic Cartography Vols. 1 & 2

This project was fully discussed based on the content of letters received by R. Anson from K.-H. Meine and sample documents authored by Prof. F.J. Ormeling, Jr. Drs. Frank was firmly of the opinion that the suggested incorporation of the materials in a box would be quite impractical and he undertook to find a ring-binder or other appropriate system to contain the exercises. It was agreed that a selling price of £10 per set would be realistic, and that this would form a basis for the costing of the binding of 2,000 copies. When printed sheets of all the exercises become available these will be sent to Geo Books, Norwich. Printing and collation will be undertaken by Elsevier.

BANQUET TO HONOUR RUDOLF MULLER

Mr. and Mrs Rudolf Muller were guests of honour at a banquet in the Belfort Hotel, Amsterdam on Friday, 10 April 1987. The event was organized by Dr. F.J. Ormeling Sr., Past-President of ICA, to celebrate the many years that Rudolf Muller International Booksellers, Amsterdam, acted as the official distributor for ICA publications.

Those attending were: Dr. J. Morrison, Mr. and Mrs D.T. Pearce, Dr. and Mrs Ormeling, Sr., Roger Anson, Rolf Böhme, Harold Fullard, Bernard and Barbara Gutsell, and Helga Ravenstein.

Dr. Morrison and Dr. Ormeling made eloquent speeches on the dedication with which both Rudolf and his charming wife had served ICA for more than a decade, doing work that was arduous, often frustrating and always time-consuming.

Rudolf was presented with an elegant, illuminated scroll prepared by Ferdinand Ormeling with his accustomed artistry and craftsmanship. The framed scroll now decorates the well-appointed offices of Rudolf Muller International Booksellers, Amsterdam.

ICA and Related Publications

IN PRINT

Oceanographic cartography/Cartographie oceanographique, A.J. Kerr and A. Kordick (eds). Papers presented at the 6th Technical Conference on Cartography, Ottawa, Canada 1972. 131 pp. illus. Folding map in pocket. 1972. £14.50 (US\$24.00)

ICA Bibliography 1956-1962-1972/Bibliographie 1956-1962-1972/IKV Bibliographie 1956-1962-1972, E. Meynen. Presented on the occasion of the 6th Technical Conference on Cartography, Ottawa, Canada 1972. 129 pp. £12.50 (US\$20.50)

Computer-assisted Cartography/Cartographie assistée par ordinateur, L.van Zuylen (ed). Papers presented at a seminar in Nairobi, Kenya 6-11 November 1978. 347 pp. illus., 1979. ISBN 90 70310 02 3. £19.50 (US\$32.25)

Further Examples of Environmental Maps, D.P. Bickmore (ed). Compiled by Joint Working Group on Environmental Atlases and Maps. Printed by the Instituto Geografico Nacional, Madrid, 1984. 58 pp. 21 maps in colour, 15 figs. ISBN 90 70310 06. £14.50 (US\$24.00)

National and Regional Atlases: a Bibliographic survey to 1978. Compiled by W. Stams for the former IGU

Commission on National and Regional Atlases. 1984. 249 pp. ISBN 90 70310 07 4. £14.50 (US\$24.00)

Computer-assisted Cartography: Research and Development Report. Compiled by Lowell Starr, Chairman, ICA Commission on Computer-assisted Cartography. 1984. 124 pp. ISBN 90 70310 08 2. £12.50 (US\$20.50)

Methods of Display of Ocean Survey Data, Vol. 1. R.H.W. Linton (ed). Proceedings of the 1983 seminar on the problems of displaying data, collected in increasing quantities by modern methods of ocean survey, on hard copy maps and charts. Published jointly by ICA and NERC, 1983. 133 pp. ISBN 0 90 1875 51 1. £15.00 (US\$24.75)

Methods of Display of Ocean Survey Data, Vol. 2. R.H.W. Linton (ed). Published jointly by ICA and NERC, 1985. ISBN 90 70310 10 4. £15.00 (US\$24.75)

Basic Cartography for Students and Technicians, Vol. 1. Compiled by members of ICA Commission on Education in Cartography (Chairman: Prof. C. Koeman); sponsored by UNESCO. 1984. 206 pp., numerous graphics. ISBN 90 70310 05 8. £19.50 (US\$32.25)

La Formation des Cartographes. Comptes Rendues du Séminaire de l'A.C.I., Rabat, Maroc, 16-21 avril 1984. Edité par R.J.M.J. Bertrand, 1985. 260 pp. ISBN 90 70310 090. £14.50 (US\$24.00)

Proceedings of the Seminar on Computer-assisted Cartography. New Delhi, 22-29 November 1983. Published for ICA by Survey of India, 1985. 121 pp. £19.50 (US\$32.25)

FORTHCOMING

Basic Cartography for Students and Technicians, Vol. 2. *A Compendium of Cartographic Techniques*. Compiled by the Commission on Map Production Technology. *International Research & Development in Computer-assisted Cartography*. Compiled by the Commission on Advanced Technology.

ORDER FROM: Geo Books, Regency House, 34 Duke Street, Norwich, United Kingdom NR3 3AP

NOW PUBLISHED

Cartographical Innovations: An International Handbook of Mapping Terms to 1900. Helen Wallis and Arthur H. Robinson (eds).

ORDER FROM: Map Collector Publications (1982) Ltd. 48 High Street, Tring, Herts, HP23 5BH, United Kingdom. Price: £42.00 (excluding postage and packing).

ICA PUBLICATIONS AVAILABLE FREE FROM ITC

Examples of Environmental Maps. Compiled by the joint ICA/IGU Working Group on Environmental Atlases. Edited by F. Vasquez Maure. 1980. 31 pages of text with 9 map sheets (8 in colour). ISBN 90.70310.03.1.

Review of Registration Systems. By A.J. Kers. Prepared within the terms of reference of ICA Commission on Cartographic Technology. 1976. 26 p.

Author's Index of the International Yearbook of Cartogra-

phy, volumes 1-21. Compiled by ICA, 1980. 30 p.
 REQUEST FROM: International Institute for Aerial
 Survey and Earth Sciences (ITC), P.O. BOX 6, 7500 AA
 Enschede, The Netherlands.

JOINT ICA/UTP PUBLICATIONS

The Dynamics of Oceanic Cartography. Edited by Adam
 J. Kerr, Chairman of ICA Commission on Oceanic
 Cartography (1980-84). Published in conjunction
 with ICA as a special issue of *Cartographica* (Canada),
 vol. 17/2, 1980 (Monograph 25), 181 p., illus.
 and fold-out plates. ISBN 0-919870-25-2. Cdn \$10.

*Perspectives in the Alternate Cartography/Cartographic
 Computing Technology and its Applications*. Edited by
 D.P. Bickmore. Papers from EURO-CARTO 1, held in
 Oxford, 1981 under the aegis of ICA Commission C
 on Computer-assisted Cartography. Published in
 conjunction with ICA as a special issue of *Carto-
 graphica* (Canada), Vol. 19/2, 1982 (Monograph 28),
 191 p., illus. and coloured inserts. ISBN 0-919870-
 25-2: Cdn \$10.

New Insights in Cartographic Communication. Edited by
 C. Board. Proceedings of a seminar in London,
 September 1983 (ICA Commission D, chairman C.
 Board). Published in conjunction with ICA as a
 special issue of *Cartographica* (Canada), Vol. 21/1,
 1984. (Monograph 31), 138 p. illus. ISBN 0-919870-
 31-7: Cdn \$10.

Coastal Zone Mapping. Edited by Roland Perrotte. Part
 1, Review of Coastal Zone Mapping, initiated by
 ICA Commission on Marine Cartography (Chair-
 man, A.J. Kerr 1980-84); Part 2, Coastal Zone
 Mapping in Canada: papers selected from a semi-
 nar at the Bedford Institute of Oceanography,
 April 11-12, 1985. Published in conjunction with
 ICA as a special issue of *Cartographica*, vol. 23/1 & 2,
 1986 (Monograph 34-35). ISBN 0-919870-35-X: Cdn
 \$17.

ORDER FROM: University of Toronto Press, Jour-
 nals Department, Subscription Office, 5201 Dufferin
 St., Downsview, Ontario, Canada M3H 5T8.

International Calendar 1987

June 10-13 Lyons France

International Forum for Instrumentation and Geo-
 graphic Information F13G. Information: M. Guy
 Ducher, Direction Générale de la Recherche, Institut
 Géographique National, 2 avenue Pasteur, St. Mandé,
 94160 France

August 17-31 Montréal Canada

5th UN Conference on the Standardization of
 Geographical Names. Information: Alan Rayburn, EMR
 Surveys & Mapping Br., 615 Booth St., Ottawa, Canada
 K1A 0E9

August 18-22 Brighton United Kingdom

53rd IFLA Council and General Conference. Informa-
 tion: Rob Palmer, Library Association, 7 Ridgmount St.,
 London WC1E 7AE, United Kingdom

September 2-5 London United Kingdom

Society for the History of Discoveries Meeting.
 Information: Barbara McCorkle, SHD Secretary-Treasurer,
 45 Mill Rock Road, Hamden, CT 06511 USA

September 4-6 Glasgow Scotland

British Cartographic Society, Annual Technical
 Symposium. Information: Dr. A. Morrison, Department
 of Geography, University of Glasgow, Glasgow G12 8QQ

September 6-10 Dublin Ireland

Society of University Cartographers 23rd Annual
 Summer School. Information: 23rd SUC Summer School,
 Department of Geography, University College, Belfield,
 Dublin 4, Ireland

September 7-13 Paris France

12th International Conference on the History of
 Cartography. Information: Dr. Helen Wallis, Map
 Room, The British Library, Great Russell Street, London,
 England WUB 304

September 14-18 Lisboa Portugal

International Conference on Geographic Information
 Systems for Land Planning. Information: Secretariat
 GIS-1 P, Universidade Livre de Lisboa, Rua Victor Cordon,
 4191, 1300 Lisboa, Portugal

October 5-10 San José Costa Rica

Latin American Conference on Computers in Geog-
 raphy. Information: Dip.-Geogr. Merrill Lyew, Escuela
 de Geografía, Universidad Nacional, Apartado 86, Heredia
 3000, Costa Rica

October 12-21 Morelia Mexico

8th ICA General Assembly & 13th International
 Conference. Information: Conference Director, 13th ICA
 Conference, Apdo. Postal 25-549, C.P. 03400 Mexico,
 D.F. México

October 28-31 Atlanta Georgia USA

Seventh Annual Meeting of the North American
 Cartographic Information Society (NACIS VII). Informa-
 tion: John D. Sutherland, Map Collection, Science
 Library, University of Georgia, Athens, Georgia 30502.
 Phone: 404/542-0690

November 4-6 Montreal Canada

International Symposium on Geomatics Applied to
 Municipal Management. Information: Mr. Salvatore
 Rodi, Conference Coordinator, Lavalin Bell Geomat Inc.,
 1100 Dorchester Blvd. W. Montréal, Québec, Canada H3B
 4P3

Forthcoming Meetings

SOCIETY FOR THE HISTORY OF DISCOVERIES

2-5 September 1987

The SHD's next meeting will be held in London,
 England, 2-5 September 1987. The meeting will be
 co-sponsored by the British Library (Map Room), the
 Royal Geographical Society and the National Mari-
 time Museum. The schedule includes a reception at
 the British Library, a banquet at Guy's Hospital, and
 a boat trip down the Thames River to Greenwich.
 Further information about the programme, accommo-
 dation and a possible group flight are available from:
 Barbara McCorkle, SHD Secretary-Treasurer, 45 Mill
 Rock Road, Hamden, CT 06511 USA.

THE SOCIETY OF UNIVERSITY CARTOGRAPHERS 23RD

ANNUAL SUMMER SCHOOL 6-10 September 1987

The SUC 23rd Annual Summer School will be held in
 Dublin, Ireland. The aim of the Summer School is to
 provide a program of lectures, seminars, demonstra-
 tions, exhibitions and visits designed to provide

cartographers and other related professions with ideas and information relevant to the cartographic field. Members are drawn mainly from universities, polytechnics and colleges, and work within small cartographic and graphic units. Participants from non-educational establishments are also welcomed.

The provisional list of topics for this year's Summer School includes: Copy Art; Remote Sensing; Historic Town Atlases; Population cartography; Establishing a map library; Applications of computer cartography; and the Ordnance Surveys of Ireland and Northern Ireland.

For information contact: 23rd suc Summer School, Department of Geography, University College, Belfield, Dublin 4, Ireland. Phone: Dublin 693244 ext: 8103.

INTERNATIONAL CONFERENCE ON GEOGRAPHIC INFORMATION SYSTEMS FOR LAND PLANNING

This international conference has been organized by the Universidade Livre de Lisboa under the guidance of an International Scientific Committee composed of internationally known experts from 12 countries. The main topics of the conference are Methodology, Realization and Education.

Methodology includes topics such as, geographical rules for land planning, geographical expert systems, data handling, fuzzy logics in topological modelling, and object-oriented languages in GIS design. *Realization* includes topics such as, GIS from design to implementation, impact of new devices in GIS implementation, connecting GIS to other computer tools, and making GIS work. *Education* includes GIS computer-aided design for self development, education and training for GIS users, and universities' contribution to GIS design, etc.

The official languages of the Conference are English, French and Portuguese. For further information write: Secretariat GIS-LP, Universidade Livre de Lisboa, Rua Victor Cordon, 41-47, 1200 Lisboa, Portugal.

The date of the Conference is 14-18 September 1987.

FIRST LATIN AMERICAN CONFERENCE ON COMPUTERS IN GEOGRAPHY

The Conference, organized by the Commission on Geographical Data Sensing and Processing of the International Geographical Union in cooperation with the International Cartographic Association and local organizations within Costa Rica, is intended to provide a medium for communication and exchange of experience among those handling spatial data with computers. Topics of interest include computer-based modelling of spatial processes, digital cartography, remote sensing and geographic information systems. The languages of the Conference will be Spanish and English. The dates of the Conference are October 5-9 and immediately precede the main ICA meetings in México.

Persons wishing to register for the Conference should communicate directly with Dip.-Geogr. Merrill Lyew, Escuela de Geografía, Universidad

Nacional, Apartado 86, Heredia 3000, Costa Rica. Registration fees will be us\$50 until July 1, and us\$75 after that date. Low cost housing accommodations will be available for the meeting. Airline service is available from San José to Mexico City on a regular basis.

NACIS ANNUAL MEETING 1987

The North American Cartographic Information Society (NACIS) will hold its seventh annual meeting at the Radisson Inn and Conference Center in Atlanta, Georgia, October 28-31, 1987.

The Society is a young, interdisciplinary organization whose goal is to promote communication, coordination, and cooperation among producers, disseminators, curators, and users of cartographic information. The NACIS membership includes professionals from government, academic and private organizations.

The theme of this year's meeting is 'New Dimensions in Cartography'. The program will include such topics as cartographic activities in Latin America, legal aspects (copyright and liabilities), cartographic education, cartographic laboratories, historical cartography, microcomputer mapping programs, children's mapping, geographic information systems, navigation systems, atlases and map library technology. There will be a mixture of contributed papers, keynote speakers, invited papers, panel discussions, poster displays, exhibits, workshops and field trips. The deadline for early conference registration is July 1, 1987. For program and registration information contact John D. Sutherland, Map Collection, Science Library, University of Georgia, Athens, Georgia 30602. Phone: 404/542-0690.

INTERNATIONAL SYMPOSIUM ON GEOMATICS APPLIED TO MUNICIPAL MANAGEMENT

The Montréal Branch of the Canadian Institute of Surveying and Mapping is organizing this symposium on November 4-6 1987 at the Palais des Congrès, Montréal, Canada.

The symposium will cover the following aspects:

- Planning and design of components or systems for the capture, treatment or analysis of geocoded data;
- Planning, design and implementation of GIS;
- Development and use of GIS systems in municipal administration;
- Evaluation of the efficiency and cost effectiveness of GIS systems;
- Markets open to the private sector and marketing strategies;
- Socio-economic impact.

For further information write: Lavalin Bell Geomat Inc., 1100 Dorchester Blvd. W., Montréal, Québec, Canada H3B 4P3, attn: Mr. Salvatore Rodi, Conference Coordinator.

13TH ICA CONFERENCE, MORELIA, October 12-21 1987

The following information has been extracted from the *Provisional Second Circular* issued by the Organizing Committee. The General Assembly and the Tech-

nical Conference will be held from 12-21 October 1987. The first and last days will be dedicated to the General Assembly: therefore, an earlier arrival and a later departure are recommended for official delegates and their deputies.

Registration Fees (in US\$)	Before July 1	After July 1
Full registration	\$175.00	\$200.00
Accompanying persons	60.00	75.00
Full-time students	85.00	100.00
Daily registration		
Members	40.00 (anytime)	
Students	20.00	

Enquiries should be addressed to the Conference Director, 13th ICA Conference, Apdo. Postal 25-549, C.P. 03400 México, D.F., México.

14TH INTERNATIONAL CARTOGRAPHIC CONFERENCE Budapest Hungary 1989

The Conference Secretary, Institute of Geodesy, Cartography and Remote Sensing, Budapest, Hungary, has issued the following preliminary circular of the 14th International Cartographic Conference which is being held in Budapest, 17-24 August 1989.

The Preliminary Program includes the following topics for the Conference:

- Automation in Cartography
- Geographical Information Systems
- Uses of Remote Sensing in the National Economy
- Maps for Organizing and Controlling Agricultural and Water Resource Management
- National and Regional Atlases
- Modern Education: Modern Maps
- Maps in the Service of Tourism
- Technologies of Map Production
- Poster Session
- National/International Map and Technical Exhibitions.

Further information and Provisional Registration Forms may be obtained from: Conference Secretary, Institute of Geodesy, Cartography and Remote Sensing, H-1373 Budapest, POB 546, Hungary.

Miscellany

HELEN WALLIS RETIRES FROM BRITISH LIBRARY

A nationwide assembly gathered together on 1 July 1986 in the British Library along with members of the library staff for a presentation to Dr. Helen Wallis on the occasion of her retirement as Head of the Map Library. In an eloquent speech, Kenneth Cooper, Chief Executive of the British Library, paid tribute to Helen's services to cartography both in the British Library and worldwide. On behalf of her multitude of friends he presented Helen with a number of gifts including a dinner service and a specially compiled bibliography on hand-made paper of Helen's contributions to cartographic scholarship. A cake, in the form of an old atlas open to display a map of the world in decorative coloured icing, was a centrepiece duly admired until it yielded to Helen's knife. Anecdotes abounded including the story of Helen's visit to Japan with 17th century items for an

exhibition when the airline issued her with three tickets for Dr. Helen Wallis, Mr. Old Globe and Mr. Port Folio!

Roger H. Fairclough, BCS Newsletter 1/1987

USGS SCIENTIST HONORED

Frederick J. Doyle, senior advisor for cartography in the National Mapping Division of the U.S. Geological Survey in Reston, Virginia, was honored twice recently for his contributions to the development of airborne and space sensors and their application to national and international mapping and natural resource development.

Dr. Doyle received an honorary doctor of science degree on 12 December 1986 from Ohio State University in Columbus at its 298th commencement ceremonies. Seven days later, Doyle was appointed a Fellow of the International Institute for Aerospace Survey and Earth Sciences in a ceremony at Enschede, The Netherlands, on the 35th anniversary of the Institute's International Training Centre (ITC).

In appointing Dr. Doyle an Honorary Fellow of the International Institute of Aerospace Survey and Earth Sciences, Dr. Klas J. Beek, Rector of the Institute, cited Doyle for his dedicated support of the mission of the ITC to provide developing countries with the knowledge and skills to map their territories and natural resources. Doyle was a graduate of the first ITC course in photogrammetry in 1951-2.

As senior advisor for cartography in the USGS National Mapping Division, Dr. Doyle helps plan, direct and carry out research on airborne and space sensors and ground processing systems for the National Mapping Program.

Public Affairs Office, U.S.G.S./February 1987

Distinctions

On the occasion of the 35th anniversary of the founding of the International Institute for Aerospace Survey and Earth Sciences on 19 December 1986, by decision of the Board of Governors, Honorary Fellowships were conferred on Colonel P. Misra, Dean of the Indian Institute of Remote Sensing, Dehra Dun, India, on Dr. F.J. Doyle, Director of Research, U.S. Geological Survey and Past-President of ISPRS, and on Prof. Dr. F.J. Ormeling, Past-President of ICA. The presentations were made by Prof. Dr. K.J. Beek, Rector of ITC, at the Municipal Theatre, Enschede, The Netherlands.

On the occasion of her retirement from the British Library, Dr. Helen Wallis was honoured by the award of an OBE and the Honorary Fellowship of the Library Association. In 1986, Dr. Wallis was elected President of the International Map Collectors Society.

Deadline for next ICA Newsletter is Nov. 30 1987

Due to the timing of various meetings, the 1987 Newsletters will be issued in June and December.

Published by

INTERNATIONAL CARTOGRAPHIC ASSOCIATION

Printed in Canada by

UNIVERSITY OF TORONTO PRESS

UPCOMING MEETINGS, 1987.

Sept. 17-20, 1987. CAG Prairie Division, AAG Great Plains/Rocky Mtn. Division, joint meeting. Regina, Saskatchewan. Contact: Alec Paul, PCAG/GPRM 87, Department of Geography, University of Regina, Regina, Saskatchewan, S4S 0A2, Canada. (306-584-4223)

Oct. 4-9, 1987. ASPRS/ACSM/WFPLS Fall Convention, Reno, Nevada. Contact: Sky Chamard, P.O.Box 10761, Eugene, Oregon, 97440. (503-683-5024).

Oct. 5-9, 1987. First Latin American Conference on Computers in Geography. Contact: Dr. Duane Marble, Dept. of Geography, SUNY at Buffalo, Amherst, NY 14260. (716-688-4281)

Oct 12-21, 1987. Association Cartographique Internationale, 8e Assemblee Generale et 13e Conference Internationale. Contact: 13 I.C.A. Conference, Apdo. Post. 25-549 C.P.03400, Mexico D.F., Mexique.

Oct. 28-31, 1987. NACIS VII: 7th Annual meeting. Atlanta, Georgia. Contact: Frank Drago, Geography Department, Georgia State University, Atlanta, GA. 30332. (404-658-3232).

Nov. 4-6, 1987. "Geomatics Applied to Municipal Management". CISM Symposium, Montreal Branch. Contact: Salvatore Rodi, Lavalin Bell Geomat Inc., 1100 Dorchester Boulevard West, Montreal, Quebec, Canada, H3B 4P3. (514-871-0044)

Nov. 15-18, 1987. International Geographic Information Systems Symposium (IGIS), convened by the AAG at Arlington, Virginia. Contact: E.H.Pechan & Associates, Inc., 5537 Hempstead Way, Springfield, Virginia, 22151. (703-642-1120).

Nov 30-Dec. 1, 1987. URISA meeting, Alberta chapter. Glenmore Inn, Calgary. Contact: Maxine Madison, Department of Survey Engineering, University of Calgary, Alberta. 403-220-4982.

ASSOCIATION CARTOGRAPHIQUE INTERNATIONALE



INTERNATIONAL CARTOGRAPHIC ASSOCIATION



8^e. ASSEMBLEE GENERALE
13^e CONFERENCE INTERNATIONALE
Morelia, MEXIQUE, 1987.



7th Australian Cartographic
Conference
(incorporating Austra-Carto III)



TOWN OF SYDNEY IN NEW SOUTH WALES 1803

The Australian Institute of Cartographers
invites you to celebrate Australia's Bicentenary
at the 7th Australian Cartographic Conference

To be held in conjunction with the 28th International Geographic Congress.

VENUE : University of Sydney, Sydney NSW
DATE : 22nd—26th August 1988

The Conference will include a scientific programme with parallel sessions
on the theme "From the Age of Discovery to the Age of Space".

PLANNED MAJOR ACTIVITIES—

- Australian Bicentennial map exhibition
- International map exhibition
- Geo-Carto 88 trade exhibition
- Publications exhibition
- Scientific programme
- Official and social functions
- Social excursions
- Pre-Conference tour to historic Bathurst and technical tour of the Central Mapping Authority of NSW.

*If you wish to submit a paper, please forward
a 200 word abstract by 6th November 1987.*

Please address all correspondence to: The Secretariat
7th Australian Cartographic Conference
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