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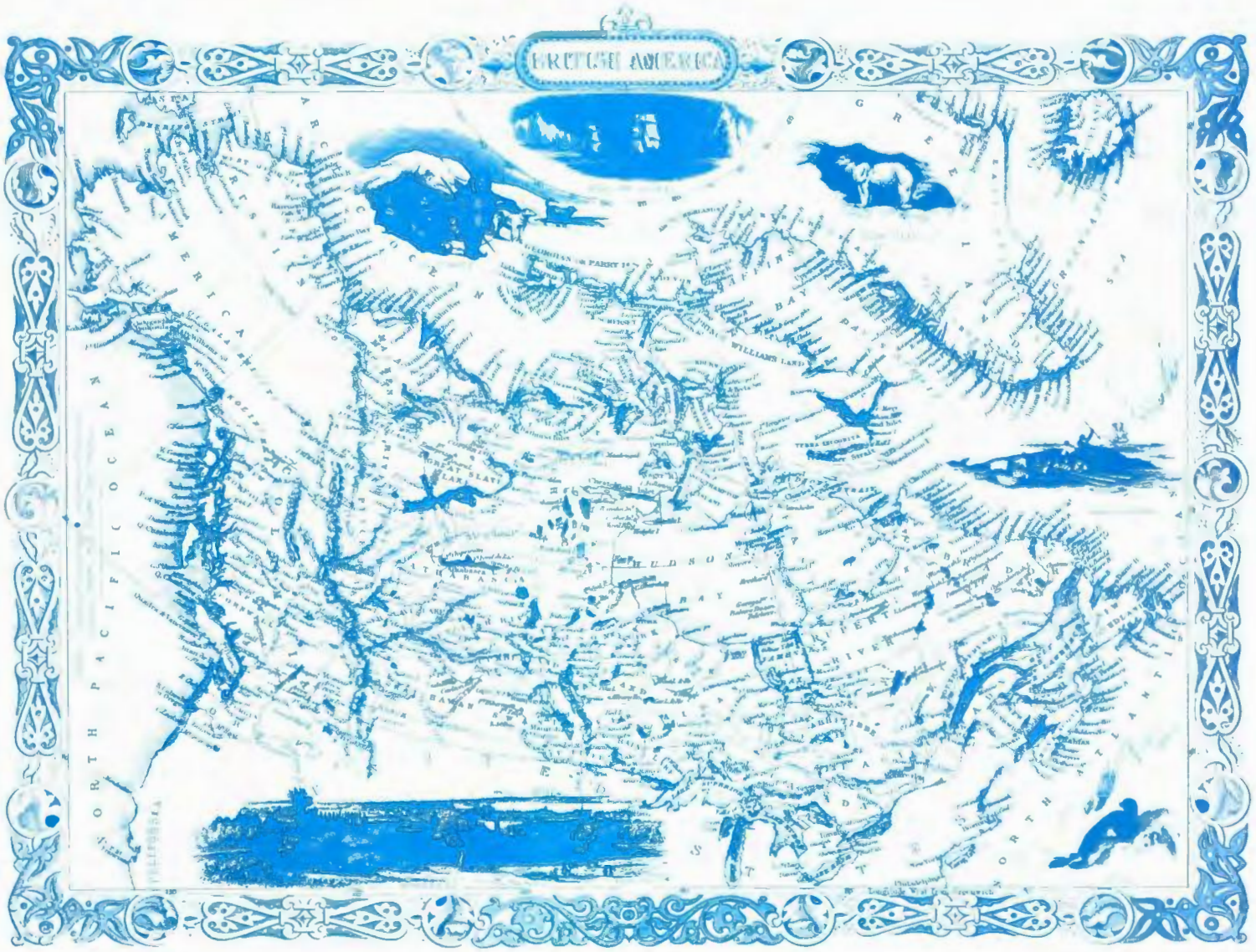
ASSOCIATION OF CANADIAN MAP LIBRARIES

BULLETIN

ASSOCIATION DES CARTOTHEQUES CANADIENNES



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ASSOCIATION OF CANADIAN MAP LIBRARIES

MEMBERSHIP in the Association of Canadian Map Libraries is open to both individuals and institutions having an interest in maps and the aims and objectives of the Association. Membership dues are for the calendar year and are as follows:

Full (Canadian map field)	$15.00
Associate (anyone interested)	$15.00
Institutional	$25.00

Members receive quarterly the A.C.M.L. Bulletin, the official journal of the Association.

OFFICERS of the Association for 1982-83 are:

President	Thomas L. Nagy	Public Archives of Canada
1st Vice President	William R. MacKinnon	Provincial Archives of New Brunswick
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Views expressed in the Bulletin are those of the contributors and do not necessarily reflect the views of the Association.

ASSOCIATION DES CARTOTHEQUES CANADIENNES

Peuvent devenir MEMBRES de l'Association des cartothèques canadiennes tout individu et toute institution qui s'intéressent aux cartes ainsi qu'aux objectifs de l'Association. La cotisation annuelle est la suivante:

Membres actifs (cartothécaires canadiens à plein temps)	$15.00
Membres associés (tous les intéressées)	$15.00
Institutions	$25.00

Le Bulletin, journal officiel de l'Association, est publié trimestriellement.

Les MEMBRES DU BUREAU de l'Association pour l'année 1982-83 sont:

Président	Thomas L. Nagy	Archives publiques du Canada
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A.C.M.L. ADDRESSE D'AFFAIRES

Association des cartothèques canadiennes
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Les opinions exprimées dans le Bulletin sont celles des collaborateurs et ne correspondent pas nécessairement a celles de l'Association.

COVER / COUVERTURE

British America, from Tallis's Illustrated Atlas ....., published by J. & F. Tallis. - London : 1851.

This map, an original of which is in the Joe C.W. Armstrong Canadiana Collection, Toronto, has been reproduced as Facsimile Map No. 100 by the Association of Canadian Map Libraries and is available from the association for $3.00.

Cette carte dont une original se trouve à la Collection de Joe C.W. Armstrong, Toronto, a été reproduite en-facsimilé (carte no 100) par l'Association des cartothèques canadiennes et est disponible de l'association au coût de $3.00.

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BULLETIN STAFF/COLLABORATEURS

REPORT FROM THE PRESIDENT

I guess you can call this an "inaugural letter." It gives me an opportunity to discuss things of concern to me and, at the same time, I hope that I will pass along information which is of relevance to the membership. I hope that you will be motivated to read this and convey your comments to me or to other members of the Board of Directors.

I have heard remarks that communication between the Board of Directors and the membership is poor or ineffective. It is questionable whether this perception is valid. I personally feel that the membership should be made fully aware of what their Board of Directors is doing. Therefore, among other things, I am going to discuss what has happened in the recent past and what the Board has planned for the near future. If you really have not kept abreast of what is going on, you should know that the A.C.M.L. held its annual conference in Ottawa from August 16 to the 20th. From feedback and personal observation, I feel that the conference was a success. For the benefit of those who could not attend, most of the papers presented will be printed in the Bulletin.

We almost had an uneventful business meeting; however there were some contentious points which created interesting interaction. At one point, during the committee reports session of the annual business meeting, the Board of Directors was accused of not providing enough information regarding the work carried out by committees during the year. The Board of Directors countered by stating that committee reports were published in the Bulletin. Some discussion ensued and it was agreed the Board should spend more time or elaborate on these reports. After the business meeting an interesting comment was made to me by a prominent founding member of the association. I quote: "Your business meetings have become too businesslike." That was an interesting observation. I remember when I joined the A.C.M.L. nine years ago, business meetings went on and on for hours. I recall people debating points at length. There were impassioned soliloquys going on for endless minutes. There seemed to be no rules and guidelines regulating these sessions. In fact, when I joined the executive there were pleas from many members, including the individual who has now accused the Board of being "too businesslike," asking that the executive try to run the annual business meetings in a more professional manner. Over the years, since I have been on the executive, I have tried to ensure that indeed the affairs of the association are run in a more businesslike and professional manner. We have come a long way. My feeling is that the Board and the members of this association have to act in a professional manner to gain national and international respect. Petty arguments do not enhance the image of any association.

Let me just briefly refresh you on some of the accomplishments of the A.C.M.L. over the past six to seven years. The Bulletin has certainly been upgraded, not only in physical appearance but also in terms of content. Aside from the Bulletin we have published Federal, provincial and municipal map libraries in Canada: a folio of selected plans, 1979; Directory of Canadian map collections, 1977; University map libraries in Canada: a folio of selected plans, 1975; Directory of Canadian map collections, 1980; Guide for a small map collection, 1981, and approximately 100 historical facsimile maps, available individually or in folios, which are in effect, atlases of facsimile maps. The Historical Maps Committee, under the guidance and labour (both intellectual and physical) of Serge Sauer, has been very helpful to the association. This committee has aided the

A.C.M.L. financially and in terms of international recognition and acclaim. The Board decided to honour Mr. Sauer at the banquet of the 1982 annual conference. He was presented with a beautifully framed map of Upper Canada, 1846, by Smyth and Faden. The map was engraved from a copperplate and is hand-coloured. At this presentation I noted that the Awards Committee of A.C.M.L. had decided to recognize the long-standing, exceptional service and achievement of Serge Sauer, the chairman of the Historical Maps Committee. I stated that we found this particular time fitting because it coincided with the publication of facsimile map number 100 and I also noted that about one-third of our annual revenues are derived from the sale of facsimile maps. At the present time there are over 50,000 A.C.M.L. facsimile maps in circulation around the world.

Another source of international recognition comes from the work of Hugo Stibbe and the members of the National Union Catalogue Committee whose work has been instrumental in paving the way for the publication of Cartographic materials: A Manual of Interpretation for AACR 2. I could go on and list many more accomplishments and praise many other members of the association but I think I have made the point that in the past six years, under the guidance of its executives, the A.C.M.L. has been governed in a more "professional" manner and has accomplishments which should bring pride to all members.

Now that I have blown our horn, I can also be realistic. There are problems. The Board of Directors was confronted with the problem of remuneration for its members during 1981. Since that time, Kate Donkin has been asked to chair the Remunerations Committee. Kate has been in contact with the persons who drafted the constitution and she is getting feedback from them regarding their interpretation of clauses relating to remuneration. Her report will be submitted to the Board in November and the Board will report to the membership. We have also been questioned about how we deal with publications, what control we have over what is going to be published, how we allocate our money for publications, and other questions regarding decisions on publishing. The Publications Guidelines Committee will try to answer most of these and other questions. You have already seen Elizabeth Hamilton's preliminary report published in Bulletin no. 43. She had asked for comments and input and I know for a fact that there were very few members who took the time to do this.

We need rules and regulations to accompany our By-Law in order to help the association function in a more efficient and effective manner. These rules should help to clarify certain aspects which are not covered by our constitution, and we have Dr. Hugo Stibbe working on these. His report will be distributed to the membership before the 1983 conference.

Questions have arisen about membership. Should we try to increase our membership? Who do we solicit to become members? Do we have a decline in membership; if so, why? A committee has been set up to assess the above questions and many others. The Membership Committee will be contacting you. Please provide input to facilitate the work of this committee.

There are two other areas which I would like to mention. One is the A.C.M.L. Archives which will soon be transferred to the Manuscripts Division of the Public Archives of Canada; the other is the National Commission for Cartography. William MacKinnon or Dorothy Ahlgren will be contacting the members shortly regarding the archives of the association.

The full story behind the demise of the N.C.C. and uncertainty of the formation of a Federation of Cartography remains to be told.

There is more that I could discuss but I will leave that for later. Read the Bulletin! You will find notes relating to Board of Directors' meetings and reports about many of the items discussed in this letter.

Again, I ask that you write me if you have any questions or problems regarding association matters, and I promise that I will communicate. I know that the other members of the Board of Directors would be pleased to hear from you.

Tom Nagy
A.C.M.L. President

A.C.M.L. BOARD OF DIRECTORS

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A.C.M.L. ANNUAL CONFERENCE 1983

The Association of Canadian Map Libraries is holding its annual conference this year in Vancouver from June 5 to 9, 1983. The meetings will be held at the Vancouver School of Theology, 6000 Iona Drive, University of British Columbia, Vancouver, British Columbia.

Accommodations are available at the School for the following (approximate) rates:

a) single room: $12.00
b) single room and board: $25.00

The registration fee will be similar to that charged last year--i.e. $30.00 to $35.00.

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PROCEEDINGS
OF THE
ASSOCIATION OF CANADIAN MAP LIBRARIES
16TH ANNUAL CONFERENCE
PAPERS

LA CARTOTHEQUE DE L'I.N.R.S.-URBANIZATION

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Université du Québec
Institut national de la recherche scientifique
Montréal, Québec

Je suis très heureuse de participer à ce congrès car c'est la première fois que j'ai l'occasion de rencontrer des gens qui font le même travail que moi ailleurs au Québec. L'objet de cet exposé est de vous présenter quelques aspects du fonctionnement de la cartothèque dont je suis responsable depuis trois ans à l'I.N.R.S.-Urbanisation.

Pour vous situer un peu, l'Institut national de la recherche scientifique (I.N.R.S.), disons que c'est une constituante de l'Université du Québec, au même titre que l'Université du Québec à Montréal ou que l'Université du Québec à Chicoutimi. L'I.N.R.S. est constitué de huit centres de recherches dispersés à travers le Québec. Chaque centre a un champ de recherche bien défini : Eau, Education, Energie, Géoressources, Océanologie, Santé, Télécommunications et Urbanisation.

C'est à Montréal, à l'I.N.R.S.-Urbanisation, que sont situés les locaux du Service de la cartographie-I.N.R.S. Ce service a été ouvert en 1970. Il comprend un atelier de production et un laboratoire de reproduction et il s'est doté d'une cartothèque en 1973. Le personnel du service se compose de trois géographes et d'un photographe.

Usagers et Collection

Bien que la cartothèque soit ouverte au public, ses principaux usagers sont, bien sûr, l'atelier de cartographie et les chercheurs de l'I.N.R.S.-Urbanisation, de même que les étudiants en géographie, en études urbaines et en architecture. Les recherches de l'I.N.R.S.-Urbanisation portent presque exclusivement sur le territoire québécois. Il en va de même de la collection de plus de 30,000 cartes et d'une centaine d'atlas de la cartothèque. Le développement de la collection se fait selon trois axes majeurs:

1. 60% de la collection comprend des documents relatifs aux phénomènes urbains. Ce sont des plans et des cartes de villes, de divisions administratives, d'occupation et d'utilisation du sol, de cadastre, de zonage, etc. Dans cette catégorie, les plans d'occupation du sol au 1:1,000 du Service d'urbanisme de la ville de Montréal sont les plus utilisés. La série des plans d'assurance-incendie est aussi souvent consultée pour les recherches en histoire urbaine. Entre parenthèses, il me manque le Volume 1 de Montréal en 1950. Si quelqu'un parmis vous possède deux exemplaires de ce volume et est prêt à se défaire d'une copie, je m 'en porte acquéreur.

2. Les cartes topographiques, d'un intérêt plus général composent 30%

de la collection.

3. Enfin, les derniers 10% de la collection touchent des sujets plus spécifiques au milieu naturel comme la géologie, l'hydrologie, la végétation, etc.

Acquisition

Bien qu'il me semble que la politique d'acquisition des documents cartographiques soit sous-tendue dans chaque cartothèque par le même objectif, soit celui de desservir les besoins de la clientèle, je vous donne quand même ces quelques précisions. Le nombre des nouvelles acquisitions de la cartothèque se chiffre entre 2000 et 3000 par année, et à peu près 95% de ces documents proviennent de sources gouvernementales. La cartothèque est dépositaire de la production cartographique de certains ministères du féderal et du provincial et par ce biais, une bonne partie du fonds documentaire est automatiquement remis à jour. A l'aide de plusieurs répertoires distribués par les producteurs de cartes, une sélection est faite pour l'acquisition des autres documents de base essentiels à la cartothèque, ainsi que pour les commandes spéciales.

La plupart des cartes produites par l'atelier de cartographie servent à illustrer les rapports des chercheurs de l'I.N.R.S.-Urbanisation; aussi sont-elles généralement conservées avec l'original du texte. Cependant, la cartothèque intègre à sa sollection certains fonds de cartes et cartes d'intérêt général, quelquefois produits à l'aide de subventions spéciales octroyées au Service de la cartographie.

Une de ses subventions a récemment servi à monter une banque de cartes superposables de la région métropolitaine de Montréal. Ces cartes au 1:50,000 représentent différents découpage : les secteurs de recensement de 1951 à 1981, les limites municipales, les circonscriptions électorales provinciales de 1976 et 1981, etc.

Mentionnons enfin que pour faciliter la diffusion des sources carto-bibliographiques, une liste des récentes acquisitions de la cartothèque est produite deux fois par année. Elle est distribuée aux chercheurs de l'I.N.R.S.-Urbanisation, aux cartothécaires québécois et à ceux qui en font la demande.

Repérage et Classification des Cartes

En plus de développer une collection spécialisée, une caractéristique de la cartothèque est d'être informatisée. Exception faite des cartes topographiques qui possèdent leur propre système de classification et que toutes les cartothèques conservent, l'ensemble des références, soit presque 7000 dossiers de cartes ou de séries de cartes, ont été entrées dans Badaduq depuis 1974. Badaduq signifie "Banque de données à accès direct de l'Université du Québec." Cette banque contient la description bibliographique des documents acquis par diverses bibliothèques et centres documentaires du réseau de l'Université du Québec. Malheureusement, notre cartothèque est la seule des Universités québécoises à consigner l'ensemble de ses références cartobibliographiques dans un ordinateur. Toutefois, certaines autres cartothèques du réseau de l'Université du Québec y intègrent une partie de leurs références : Rimouski ses atlas et Chicoutimi ses rapports géologiques.

En juin 1982, le catalogue collectif de Badaduq contenait plus de 600,000 documents; sa capacité maximale était d'un million de dossiers. Aussi, une nouvelle version de Badaduq vient tout juste de voir le jour et n'est pas encore tout à fait opérationnelle. Dans cette nouvelle version, toutes les zones catalographiques essentielles sont les mêmes que celles du format Mini-Marc (Machine Readable Cataloguing), ce qui permet de repêcher des pour sa part, continue à se faire suivant les Règles de catalogages anglo-américaines. Quant à l'indexation, elle se fait toujours selon le principe des unitermes en vocabulaire libre que l'on appelle descripteurs.

Les zones catalographiques de Badaduq sont avant tout conçues pour la description des livres. Par exemple, la zone des données mathématiques, où l'on incrit l'échelle, le type de projection, les coordonnées et l'équinoxe, n'existe pas. Il y quand même moyen, grâce à la zone des notes, d'inscrire toutes ces informations. La recherche de documents dans Badaduq peut se faire selon plusieurs modes d'accès, dont les plus usuels sont les auteurs, les titres, les sujets. Pour les documents géographiques, il est bien connu que les auteurs et les titres ne sont pas d'une grande utilité. C'est donc par les descripteurs qui comprennent les régions et le sujets que nous pouvons retrouver un document. L'interrogation de Badaduq, tout comme l'entrée des données, se fait en mode dialogué. Après s'être installé à un terminal et avoir donné quelques directives à l'ordinateur, l'usager peut entreprendre sa recherche à l'aide de phrases logiques composées d'intersections (et), de réunions (ou), encore d'exclusions (sauf). Par exemple, il peut demander :

Urbanisme ou aménagement et Québec sauf Gaspésie.

L'ordinateur répond qu'il a n références. L'usager peut alors faire apparaître la liste de ces références sur son terminal ou, si la liste est trop longue, l'envoyer en différé sur une imprimante rapide.

La classification traditionnelle (selon les systèmes de la Librairie du Congrès et de Boggs and Lewis) joue dans un système informatisé un rôle de moindre importance, en tout cas, pour les petites collections. On pourrait même ne donner aucune cote à un document. Pour qu'un document soit repérable, il faut avant tout lui attribuer un numéro de dossier. Ces numéros nous sont fournis par le Service informatique de Badaduq. Ils sont en ordre croissant. On pourrait donc très bien classer les documents seulement par numéro. Cependant, pour le responsable de la cartothèque, il est plus aisé et plus rapide de retrouver tous les plans de ville dans une même section, et les cartes des limites administratives dans une autre. Aussi, la classification de la cartothèque se fait par sujet et par numéro d'acquisition.

La cartothèque n'a cependant pas de terminal à sa disposition et l'entrée des données se fait au centre de documentation de l'I.N.R.S.-Urbanisation. Pour chaque lot de dossiers entrés dans Badaduq, il est possible de faire sortir des fiches bibliographiques. Un fichier à deux options se trouve à la cartothèque. Le premier est classé par région, date et échelle, et le deuxième par sujet, région, date et échelle. L'ancienne version de Badaduq ne permettait la sortie que par sujet, auteur et titre. Pour constituer un fichier par région, il fallait trier à la main une série de fiches par sujet et l'intégrer dans le fichier région. Avec la nouvelle version de Badaduq ce problème n'existe plus, car une zone est disponible pour l'identification de la région.

Services aux Usagers

Les usagers de la cartothèque peuvent consulter les documents sur place ou faire une demande d'emprunt entre centres documentaires. Les documents peuvent être photocopiés et grâce au laboratoire de la cartographie, il est également possible d'effectuer des agrandissements ou des réductions à la caméra.

Conclusion

Il m'est arrivé que des usagers du réseau de l'Université du Québec, après avoir consulté Badaduq, m'empruntent des documents. Or, j'ai été à même de vérifier que ces documents étaient disponibles à la cartothèque de leur institution. C'est peut-être une méconnaissance ou une mauvaise adaptation des ressources. C'est sans doute, par ailleurs, une preuve de l'efficacité potentielle d'un réseau informatique intégré. Je n'ai pas l'ambition de vider aujourd'hui cette question. Cependant, il est tout aussi vrai que si je connaissais par l'intermédiaire de l'ordinateur le répertoire documentaire des autres cartothèques universitaires, je pourrais donner un meilleur service aux usagers. Ce jour n'est peut-être pas si loin, car déjà la cartothèque de la Bibliothèque et celle des Archives nationales du Québec ont chacune un projet d'implantation de l'informatique en voie de réalisation. Dans un proche avenir les questions découlent de l'utilisation de l'informatique seront sûrement l'objet de débats et d'échanges à l'occasion des rencontres des cartothécaires québécois dans le cadre des activités de l'Association québécoise de cartographie (Carto-Québec).

* * *

A PRELIMINARY GUIDE TO NINETEENTH CENTURY CANADIAN GUIDE BOOKS: A Survey of holdings of the McLennan Library with an historical introduction

Carol Marley
McGill University
McLennan Library
Department of Rare Books and Special Collections
Montreal, Quebec

Many bibliographic projects result from reference questions addressed to librarians or, in our case, to map curators. This particular project, A Preliminary Guide to Nineteenth Century Canadian Guide Books: a survey of holdings of the McLennan Library with an historical introduction, is no exception. A number of questions are regularly addressed to the map collection concerning the nineteenth century--so many, in fact, that I've come to see it as "the century" in terms of Canadian materials. We certainly should be collecting heavily in this period, and so we are.

Some questions are difficult to answer definitively. The one that piqued my curiosity and ultimately resulted in this project was posed by a reference librarian from the Library of Congress. He asked when our earliest Canadian guide book was published. This is a very interesting question indeed, and one which I would like to answer for Canadian guide books in general, not just for those in McGill's collections. In the process of trying to answer the question, I've become fascinated with guide books and the history thereof. E.S. Beer, in his article sketching the origins of the guide book, puts it very well:

> Guidebooks are worthy of study in their own right, as a form of human activity; if few of them possess literary merits of high rank, many of them fulfil to a remarkable degree the purposes for which they exist. They have special claims on archaeologists, historians, and antiquaries; they may provide information, sometimes as the most accessible, sometimes of the best, or even the only, sources, not merely for the history of monuments, but also for the social and economic life of the past, and occasionally for its modes of thought. But individual books cannot be properly isolated from their fellows...[1]

For these reasons a finding list was compiled to make accessible to the researcher, McLennan Library's nineteenth century guide books relating to Canada.[2,3]

Before proceeding further it would be well to define the term "guide book" and to describe the types included in this list. There is some confusion as to what constitutes a guide as opposed to topographical dictionaries, voyages, and travels. A guide book may include all or some of the following features: town plans and maps, pictures, description of buildings, monuments, scenery, and information on transportation, lodgings, and businesses. The crucial distinction to be made between the guide book and other types of travel literature is that it guides the traveller describing how-to-do-it, thereby facilitating travel. This list includes only guide books and excludes travels.

Within the category of guide books there are various types. Pictorial guides which lack text have for the most part not been included in this

finding list because they do not "guide" the tourist. For the same reason, emigrants' guides are also excluded. That they contain much information of a semi-official kind to help the prospective settler can be gleaned from the title--Practical Information to Emigrants Including Details, Collected from the Most Authentic Accounts Relative to the Soil, Climate, Natural Productions, Agriculture, etc. of the Province of New Brunswick, published by George Frederick Cruchley in 1832. Catherine Parr Traill's, The Canadian Settlers Guide, 1855, is another book of this sort, containing advice on Canadian housewifery and skills necessary for the settler's survival. The major thrust of the guide books included in this list is guiding the tourist on his travels through Canada. While not all of the books deal exclusively with Canada, those with important Canadian content are included. American guides which deal only peripherally with Canada are excluded.

There were few difficulties in finding histories of guide books in general. Guides have existed for centuries, directing the medieval traveller along the pilgrimage routes of Europe. Later they served a group of travellers mainly interested in the pursuit of culture as they sought out gentlemen's houses to see their furnishings, particularly their pictures. Guides also directed travellers to spas for the improvement of health. Later as people gained more leisure time, spas became holiday centers and guides advertised local attractions.

Although guides have existed for centuries, it is only in the late eighteenth and the nineteenth centuries that their use becomes widespread due to improvements in transportation and economic conditions, which allowed many more pople to travel. Series such as Baedekers began publication in 1828.[4] In the same year, Baldwin and Cradock, publishers of the Library of Useful Knowledge, advertised Leigh's travelling books.[5] Guides to England, Europe, and Canada were being offered a decade later by the firm of George Frederick Cruchley. At this time one of the most famous names in the history of publishing of English guides, John Murray, was already publishing his handbooks. His first guide specializing in Europe appeared in 1836.[6]

Canadian Guide Books

While travel literature in general is well documented in many bibliographies and indexes, and English guides as well as those of Baedeker have been the subject of books, not much has been written on Canadian guide books, to judge from various indexes. Here and there will appear a paragraph within an article on travel literature, such as Elizabeth Waterston's articles on Canadian travel books of the later part of the nineteenth century.[7,8] Guide books can be located in Toronto Public Library's bibliographies,[9,10] but there is no subject index, so it is time-consuming. As the various segments of the National Library's bibliography Canadiana 1867-1900: Monographs become available, they should be invaluable for tracing guides.

For the moment, however, one can form some impression of the development of Canadian guide books from looking at this list. McGill's earliest guide book on Quebec is a Canadian imprint published in Quebec City in 1822. Until the middle of the nineteenth century, the majority of McGill's Canadian imprints were published in Quebec City and they specialized in that city. Similarly those books published in Montreal dealt exclusively with Montreal excepting The Canadian Guide Book..., 1849, which is McGill's

earliest guide containing mainly Canadian content. That Quebec City figures so prominently in the early guides probably has as much to do with commerce and the development of printing in the province as anything else. Quite simply, the guide books reflect the city's importance in North America at this time. If we are to judge from the Canadian imprints, until mid-century Quebec City remained a more popular destination than Montreal. However, when we look at the non-Canadian imprints of the same period, American books predominating, Montreal steadily grows more popular. The city is mentioned in the titles after 1834, along with other Canadian destinations--Niagara, Quebec, and the St. Lawrence River.

Canadian and American imprints reflect a totally different emphasis, as is only to be expected. American imprints contain more material on the northeastern United States and comparatively less on Canada. Canadian imprints obviously cater to the needs of the local market. In this context it is interesting to note that many of the early Quebec City guides serve also as local directories. American imprints from the first half of the nineteenth century outnumber Canadian by a factor of three to one, hardly surprising when one considers the relative populations of the two countries. Certain publishers were prolific, among them Theodore Dwight and Harper & Brothers of New York and Gideon Miner Davison of Saratoga Springs, New York. Emphasis was on travel within New York State and adjacent parts of Canada.

American imprints again account for most of the foreign imprints which date from the second half of the century. As in the first half, a few publishers specialized in guides. In New York, John Disturnell was active during the 1860s and Appleton produced guides throughout the second half of the century. In Boston, the firms of James Osgood and Ticknor published a number of guides. There is a decided change of emphasis in these guide books in that they begin to cover more territory, namely, New England and the rest of the United States. They contain significant sections on many parts of Canada, no longer only Niagara, Montreal, and Quebec. It is interesting to see a number of books with a more local emphasis, such as a guide to the route of the Atlantic and St. Lawrence Railroads, or the Maritimes, the Great Lakes, the Ottawa River. Not until 1891 do we find a book titled Canadian Guide-book, exclusively Canadian in content and dealing with eastern Canada. However, there were books published throughout the last quarter of the century that contained solely Canadian, as opposed to American, material. In the last decade of the nineteenth centruy, Canada appears to have come into its own, two Baedeker's guides having been devoted to the country.

Canadian imprints from the second half of the century outnumber those of foreign origin by a factor of four to one. After 1850, Quebec City continued to produce many guides which tended to deal exclusively with the city or the province of Quebec. Montreal begins to dominate the scene, publishing twice as many guides on Montreal as were produced on Quebec City, and is soon followed by Ontario, and slightly later by the Maritimes. By the last quarter of the century Winnipeg is producing a number of guides. Montreal figures strongly as a subject of those books published there, but the city also produced the second earliest guide (at McGill) covering all of eastern Canada, Mackay's The Stranger's Guide to the Cities and Principal Towns of Canada, 1854. Henry Beaumont Small's The Canadian Handbook and Tourist's Guide, 1866, was likwise published in Montreal. Just as we find that the American guides have a more local emphasis--the St. Lawrence River, for example--so have the Canadian. Also

we find certain prolific publishers. In Montreal, Dawson, Chisholm, Hunter, Mackay, and Lovell specialize in guide books. The latter two were responsible for Montreal's directories as well. Macdougall of Winnipeg supplies information on Manitoba and the Northwest Territories. The entrepreneur enters the publishing scene. Hotel keepers and railways produced a number of guides toward the end of the century. Another special type of publisher emerges, the professional association. During the last two decades of the nineteenth century, various associations published guides to the cities which hosted their meetings.

Clearly Canada became far more active in the production of guide books in the second half of the nineteenth century. The trends which seem observable from McGill's holdings may not be representative of Canada in general because our collections have been chosen to support areas of interest to McGill, in particular Montreal, the St. Lawrence, and Quebec. It would be interesting to check other library's holdings such as those of the Toronto Public Library, the National Library of Canada and leading American collections to begin to understand the evolution of the Canadian guide book.

Footnotes

[1]John Vaughan, The English Guide Book c 1780-1870: an Illustrated History (London: David & Charles, 1974), preface.

[2]Unfortunately at this time it has not been possible to retrieve guides housed in the Canadian Pamphlets Collection nor those in the uncatalogued section of the Rare Books stacks. These books can only be located by main entry.

[3]Technically all the guide books will be located in the Department of Rare Books and Special Collections because all of the guides from the McLennan stacks are in the process of being transferred. They will be arranged by their call numbers in the Rare Books stacks.

[4]Harold M. Otness, Index to Early Twentieth Century City Plans Appearing in Guidebooks; Baedeker, Muirhead-Blue Guides, Murray, I.J.G.R., etc., Plus Selected Other Works to Provide Worldwide Coverage of over 2,000 Plans to over 1,200 Communities, Found in 74 Guidebooks (Santa Cruz, Calif.: Western Association of Map Libraries, 1978), p.1.

[5]John Vaughan, op. cit., p.40.

[6]Ibid., pp.42-4.

[7]Elizabeth Waterston, "Travel Books 1860-1920," Literary History of Canada: Canadian Literature in English, 2d ed., ed. Carl F. Klinck, I (Toronto: University of Toronto Press, 1976), pp.361-79.

[8]Elizabeth Waterston, "Literature of Exploration; Canadian Travel Books of the 1870s, "Studies in Canadian Literature, IV (Summer 1979), pp.44-61.

[9]Toronto Public Library, A Bibliography of Canadiana; Being Items in the Public Library of Toronto, Canada, Relating to the Early History and Development of Canada, ed. Frances M. Staton and Marie Tremaine (Toronto: Public Library, 1934).

[10]Toronto Public Library, A Bibliography of Canadiana, First Supplement (Toronto: Public Library, 1959).

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USING MAPS IN A NATURAL HISTORY MUSEUM

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How can maps be used in a natural history museum? The commonest use, and one that most people are familiar with, is for exhibits. This usually means displaying historical maps to show the growth in cities or how explorers saw their new horizons. But other kinds of maps are used in museums for purposes besides exhibits. These uses can vary depending on the museum's subject specialties and its purpose in the community.

For a natural history museum, there are certain broad subject disciplines that are usually covered. The Milwaukee Public Museum is a natural history museum and has scientific departments for zoology, history, botany, anthropology, and geology. The museum was established in 1883 and its responsibilites haven't changed much in almost 100 years. It continues to exhibit human and natural sciences, to research and collect specimens pertaining to these subjects, and to offer the staff's expertise to the community at large.

Maps play an important part in all facets of the museum and each department uses maps to some degree. Map-uses can be broken down into four categories: fieldwork, specimen and research location, publications, and exhibits and graphics. For the purpose of brevity and, since most of you are familiar with the use of maps in publications, this paper will focus on the map-uses in fieldwork, specimen and research location, and exhibits and graphics.

Fieldwork

For fieldwork, maps are used from the project's inception through its completion. During the initial planning, the project scientist gathers material about the subject and the location from books, maps, air photos, and other scientists who have done research in that subject or area. Before the project crew leave for the study area, this material is made available so that everyone is familiar with the location, the subject to be studied, and the purposes of the fieldwork. Because fieldwork involves travelling into isolated areas, detailed maps are purchased and used for navigation. Another set of maps is used to record fieldwork activity such as where and how specimens are discovered. Although living conditions for fieldwork are primitive and rough, care is taken to ensure that the research maps are intact when the group returns.

The organization of raw data and specimens after a field project would be impossible without the use of the now frayed and well-used research maps. Bit by bit, the sketchy field notes are written up into reports, and location information is transferred to clean maps. Just as specimens are catalogued and accessioned to the museum's permanent collection, these manuscript maps and reports are now ready to be added to the Geology Department's library of research resources. Later, the research and the specimens may be developed into an exhibit or the scientists may refine the work for publication. More importantly, it is now available to other institutions and scientists for future research.

For several years, the museum's Geology Department has conducted fieldwork in Montana for the purpose of collecting dinosaur fossils. U.S.G.S. topographic maps are used as road maps, research maps for recording information while in the field, and for the final manuscript maps. Location details from past fieldwork and from studies conducted by other institutions are added to the research maps before going into the field. As specimens are discovered, the location information is added to the research maps. Back at the museum, with the specimen in hand, the sketchy location data is expanded and organized into a standard format then transferred to the manuscript map.

Specimen and Research Location

Through the years, specimens have been collected, purchased, and donated to the museum. When a specimen is added to the museum's collection, a detailed description is recorded. Part of this description includes geographical information about where the specimen was found or made. Since there are no standards for recording specimen location, most of the data gathered in the past is sketchy and incomplete at best. In order to make the permanent collections more useful for research purposes, both by staff scientists and other institutions, maps, gazetteers, and historical atlases are used to complete the geographic data as much as possible.

The Invertebrate Zoology Department has been working on a project of completing geographic data for part of their mollusk collection. Most of the specimens were purchased from Mrs. Charles M. Wheatley in the late 1800s. Charles Wheatley was an engineer by profession, but he was also an avid collector of freshwater shells. After his death, in 1882, his collection of bivalve and gastropods was divided and sold to various institutions.[1]

The Wheatley specimens constitute a large portion of the museum's mollusk collection but the geographic data is incomplete and confusing. This collection would be better utilized by staff scientists and other institutions conducting research in the area of malacology if the geographic data were expanded.

Elaborating on the original geographic information is a long process. Information is gleaned from a number of reference sources before a decision can be made as to where the old specimen was actually collected. The first step is to find the original geographic data recorded by staff at the time the specimen was added to the collection. Often this means deciphering hand-written script found in old accession ledgers and second-guessing what the abbreviated notations mean on labels and index cards.

To expand the original geographic data, the spot where the specimen was first found must be located on a map. For this task, the three-volume 1905 edition of the Lippincott Gazetteer, coupled with U.S.G.S. topographic maps dating from this time period, have been useful. Other reference sources include: historical county atlases (showing plat maps with local place names) and commercial atlases.

Once the locations have been verified, the geographic data is recorded. First, it is typed on a label using a standard format; the label is stored with the specimen. An expanded version of the location data incorporating information from the accession ledger and any details found from the reference sources is recorded on an index card.

Exhibits and Graphics

The Exhibits and Graphics Department, commonly known as E&G, creates maps to be used as part of the museum's exhibits. These exhibit maps give the museum visitor information that would be difficult to portray by any other means.

An exhibit will usually have a large general map at the entrance and then smaller, more detailed maps throughout to give specific information about the subject and to help visitors orient themselves geographically. The maps tend to be large with simplified and stylized cartographic features that make it easy for people to understand. Besides presenting information, these maps hold the visitors' attention and add colour and design.

The planning and production of the exhibit maps involves in-depth research. The staff artists and designers must become completely familiar with the subject in order to draw the maps accurately. Reference sources include books, maps, atlases, specimens, and globes.

An exhibit with some fine examples of maps as part of its design is our new Earth-Science Hall scheduled for completion in the fall of 1983. In the early planning stages, a miniature scale model was made. In order to draw this map accurately, the designer and artist used the well-known National Geographic maps of the ocean floor, a physical globe, and various books on the subject.

When I started working in the Museum Reference Library, I was surprised to see the number of ways maps were used. In the academic map libraries where I had worked in the past, maps were acquired basically for research and for classroom and laboratory use. In order to use maps effectively in the museum, I have had to keep a clear idea of which ones should be acquired. As the museum's needs cover a much wider scope than most academic map libraries, I have had to throw the acquisition "net" equally wide. It also means that I must be familiar with what maps and resources have been used in the past for special projects and what maps have been compiled and produced by staff for research, exhibits, and publication purposes. This has made the job rather exciting as it has brought me in contact with several disciplines more closely than would have happened in most traditional academic map libraries.

Reference

[1]Richard I. Johnson, "The Charles M. Wheatley Collections," Nautilus 73 (October 1959): 72-74.

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PRELIMINARY CHECKLIST OF IMMIGRATION ATLASES: A SUMMARY

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The article on the checklist of immigration atlases was published in the Association of Canadian Map Libraries Bulletin 41 in December 1981. I selected the term "immigration atlases" for reference to a group of publications published by the Department of the Interior to promote settlement of Western Canada. Each atlas measures 28 by 20 cm and contains, on the average, forty pages of text, a third of which contain maps. The majority of the maps in these atlases were published by the American firm, Rand McNally. The thirty-two atlases cited in the checklist range in publication date from 1899 to 1951.

One of the reasons for compiling the checklist was to assist map libraries in identifying their holdings. The checklist distinguishes editions of the Atlas of Canada, published for immigration purposes, from the early editions of The National Atlas of Canada that are cited in bibliographies under the abbreviated title Atlas of Canada. Personal interest in the period of immigration to Western Canada and a curiosity about the reasons for the popularity of the immigration atlases were additional factors that led me to compile this checklist.

In order to produce a working list, I consulted several reference tools including bibliographic works, union lists, and catalogues. I limited my examination to copies of atlases in libraries in Ottawa, Montreal, and Toronto. The National Library of Canada, Division of Official Publications, the Public Archives of Canada, and the National Map Collection all possess numerous copies of these atlases. For each atlas I recorded the pagination, size, and number of maps. The publishers of the maps and their copyright dates were listed. I also described the illustrations on the front and back covers of each atlas.

Once the checklist had been completed I continued my research on this topic by reading the biography Clifford Sifton: The Young Napoleon 1861-1900 by D.J. Hall. This book revealed the historical background of Sifton's endeavors to accomplish the department's goal of populating the Canadian prairies. Numerous methods to attract settlers included payment to European shipping agents for directing immigrants to Canada and the publication of promotional literature, for example, the immigration atlases.

Clifford Sifton encouraged settlement by simplifying the procedures necessary for obtaining land patents. His successful negotiations with the railroad companies resulted in additional land for settlement. These policies encouraged immigration and subsequently a greater demand for the immigration atlases. James White, the Chief Geographer of the Department of the Interior, was responsible for producing a standardized general reference map of Canada to be used in the department and in all other governmental publications. In later editions of the atlases the maps were produced by the Cartographic Branch of the Department of the Interior.

Another useful source of information, the Sessional Papers, contained a

wealth of both factual and primary source information about the immigration atlases.

The Department of the Interior annual reports were found in the Sessional Papers and they listed statistics on the number of atlases printed, changes in their titles, and statistics on the large number of requests for the atlases from educators, agents, and settlers. The annual reports revealed that the demand for the atlases from European countries warranted their translation.

In closing I would like to summarize my observations regarding the immigration atlases. The art work on the covers of the atlases as well as the photographs accompanying the text were used to attract settlers to Canada's farm lands. This style of presentation was common to the geography texts of this period. Perhaps by our twentieth-century standards these publications seem drab and naive; however, these atlases appealed to the market of the early 1900s. The maps that appeared in these atlases served chiefly as general reference maps portraying the physical features of the country, railroad lines, and international boundaries. The maps were probably produced using the wax engraving or cerography technique. This type of map printing was employed in the United States during the late nineteenth century.

In summary, the publication of these immigration atlases served the needs of providing settlers with maps and information about Canada. This resulted in the production of more detailed and sophisticated thematic maps of the country that were published in the first edition of the National Atlas of Canada.

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PROCEEDINGS OF THE ASSOCIATION OF CANADIAN MAP LIBRARIES 16TH ANNUAL CONFERENCE REPORTS

DEPARTMENT OF ENERGY, MINES AND RESOURCES SURVEYS AND MAPPING BRANCH ANNUAL REPORT 1982

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During the fiscal year 1981/82 ending March 31, 1982, the Surveys and Mapping Branch published the following:

933 new or revised topographical maps
423 aeronautical charts
34 geographical maps.

In addition, 766 reprint items were printed along with 516 other maps and charts for other EMR branches (primarily Geological Survey of Canada) and other government departments (Canadian Hydrographic Service, Environment and Agriculture). All of the 2,672 titles were printed by offset lithography with the average press run being slightly more than 2,700 copies, the average number of inks per title being almost six, and the largest format being 1118 x 1651 mm (44 x 65"). Forty-two percent of the printing was done by contract to the commercial printing industry.

During the year, the Canada Map Office distributed more than 2.3 million maps and charts and more than 860,000 cyclical air information publications, some of which are IFR aeronautical charts. About 70% of sales were through the network of 875 map and chart sales counters in the private sector and provincial government offices.

The inventory of the Canada Map Office grew from 14,326 titles to 15,322 titles, and the total holding is more than 21,000,000 copies. The inventory includes the following:

	Scale	Titles	Coverage of Canada
National Topographic Series	1:25,000*	691	-
National Topographic Series	1:50,000	9,651	70%
National Topographic Series	1:125,000*	377	-
National Topographic Series	1:250,000	922	complete
International Map of the World	1:1,000,000	128	complete
Aeronautical Charts & Bases		804	complete
Geographical		763	-
Canada Land Inventory		671	-
Land Use Information Series		249	-
Other (Electorals, Military City Maps, etc.)		215	-
Miscellaneous Publications		223	-
	TOTAL	15,322	

More than 122,000 maps were provided without charge to the 100 full and 42 partial map depositories, an increase of 14% over the 107,000 provided the previous year.

No progress can be reported on the overhaul of the depository system which was mentioned at the A.C.M.L. meeting last year. It depends upon the implementation of a computerized order entry/inventory control/accounting/ automatic distribution system which is now being procured. The system should be in place in the spring of 1983 and we will then be in a position to revise the depository system and improve its effectiveness.

Maps in colour transparency form (VuGraphs for use with overhead projectors) were made available to users for the first time on a custom basis. We are considering making these a standard product by producing a master negative for each title and copying these on demand. This would reduce the selling price from the present $13.50 to about $7.00 per VuGraph. These project well and, in effect, make maps which are designed for close-range use capable, of being studied by a large audience (e.g., a classroom).

More recently, the Surveys and Mapping Branch has ventured into a new field with the issue of the Canada, Then and Now and Le Canada, d'hier à aujourd'hui packages. Each folder contains three maps--Canada at Confederation, Territorial Evolution of Canada, and Canada (1982), all at the National Atlas 5th edition 1:7.5 million scale. These maps should be of great interest to everyone with any interest at all in the evolution of our nation. The package, which is on sale at a price of $5.95, is, in our view, the best map value one could find anywhere and is directed at the general public. It is expected that depositories and educational institutions will want the maps in flat form.

Our major medium for informing users of available maps continues to be the 3-part index (Eastern Canada, Western Canada, Northern Canada) which contains details on all topographical maps and the more popular geographical maps. It is now being revised annually, being issued about April 1st of each year, with content being updated to January 1st.

* The NTS 1:25,000 and 1:125,000 series are no longer maintained and will be withdrawn from distribution as present stocks are depleted.

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DEPARTMENT OF THE ENVIRONMENT
LANDS DIRECTORATE
A SUMMARY OF MAP-RELATED ACTIVITIES
1981/82

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Thank you for the invitation to participate in the 16th Annual A.C.M.L. Conference. This year's theme, "Perspectives on Co-operation," is particularly appropriate to all public and private sector agencies in this era of continuing budget restraint and reallocation. Many activities within the Lands Directorate are conducted in a co-operative mode, both at the planning and research stages, with the sharing of scientific and technical expertise, and at the output stage, with assistance during several phases of the publication process. Hence, co-operation has contributed singificantly to the outputs of maps, reports, and computerized data sets during the past year.

I would like to begin by describing the Canada Land Data System (CLDS), a computerized information system which has been in operation for more than ten years. Initially the system was designed to accommodate and aid in the analysis of the mapped information collected by the Canada Land Inventory. Since then, the data base has expanded to more than 4,000 digital maps including: the Canada Land Inventory which details the land capability for forestry, agriculture, recreation, and wildlife-waterfowl and ungulates for most of the settled areas of Canada; land-use maps; census enumeration areas; watershed boundaries; data on federal land holdings; and other specialized data sets for a variety of clients.

The system through its main software component, the Canada Geographic Information System (CGIS), stores, manipulates, and produces data in various forms. Figure 1 provides an overview of the major components.

On input, the CGIS software converts the data into the data base quickly, accurately, and at a relatively low cost, using one of several digitizing procedures. The data is generally scanned with a map scanner. However, for low-density maps (i.e., with few areas), manual or hand digitizing is used to convert the analog or map information to a digital image. Both the image of the maps and the attribute or descriptive data associated with the map elements are stored by the system in a single integrated data base.

To produce large geographical area data bases, maps can be joined. The system allows: a comparison of maps of different scales; the definition of study areas with significant flexibility; the retrieval of data for user-defined study areas; the calculation of the area and/or perimeter of map units; and the comparison of data for any area by overlaying sets of information.

On output, the system provides the data either in tabular or map form. Maps are produced at the required scale, usually as black and white line maps. Colour maps are now being used more frequently as well. The data is available for direct input to commercially available packages for further manipulation. The most common form of output has been IGSS (Interactive Graphics Subsystem) data bases that are accessed from remote terminals to produce maps and tables on a CRT screen. Tabular reports not available to the IGSS have also been produced for many users.

CLDS is used primarily by Environment Canada and other federal government agencies. Some provincial agencies, crown corporations, and universities are also users. The system is being applied in such areas as land-use planning and monitoring, federal land management, defining areas of conflict between competing resources, park planning and management, linking census data to other types of information, environmental impact studies, and ecological land evaluations. CLDS provides an exciting tool and, as you will see, plays an important role in the generation of data for a variety of Lands Directorate publications.

The Canada Land Inventory has more than 1,000 maps published, indicating the land capability for agriculture, forestry, recreation, wildlife-ungulates, wildlife-waterfowl, sport fish, and also a coverage for land use. Except for B.C. agriculture and forestry, which are printed at the 1:125,000 scale, most maps are available at the 1:250,000 scale. Recently, the land capability maps for all six sectors have been mounted on microfiche at the 1:250,000 scale and will soon be available. [Note: Inquiries concerning the CLI microfiche should be directed to Tom Pierce, CLI co-ordinator, Lands Directorate.] A generalized series at the 1:1,000,000 scale has been prepared by province or region, summarizing the available individual sectors. During 1982, the watershed capability for sport fish in Alberta, (1:1,000,000 scale) was published. To date sport fish maps (1:1,000,000) have been printed for the Atlantic provinces and Manitoba. Ontario and Alberta, the remaining sport fish maps (1:1,000,000), are at the final preparation stage.

In addition to the CLI maps, four summary reports using CLI data are available for agriculture, recreation, and wildlife ungulates and waterfowl. Of these, the wildlife reports were printed during the past year as CLI Report No. 16, Land Capability for Wildlife-Waterfowl, and CLI Report No. 17, Land Capability for Wildlife-Ungulates. These are essentially data reports which result from data sets generated by the CLDS and are intended to facilitate the use of CLI data for land use planning and management.

The Urban Centred Region series of the Canada Land Use Monitoring Program is the newest report series in the Lands Directorate. The reports in this series are intended to be interim and they have a limited press run. Each report, consisting of computer-generated maps, tables, and text, documents the nature, rate, and amount of land use change in the rural-urban fringe of a Canadian city. For the period 1966 to 1976, cities with a population exceeding 100,000 were included in the project. Commencing in 1981, the project was expanded to include all urban areas with a population greater than 25,000. To date, data for each urban centred region has been collected in five-year cycles, using an air photo interpretation technique. The data for each cycle is input into the computer (CLDS) and then manipulated for analysis and report writing. Three reports in this series have been published and include: Report No. 1, Calgary 1968-1979, Report No. 3, Regina 1968-1978, and Report No. 4, Edmonton 1968-1976. An additional nine reports are in the final preparation stage. These individual city reports will be followed by a national overview of urban centred regions report for the 1966 to 1976 period. It is expected that the national overview report will be available during 1983.

The Ecological Land Classification series is designed to publish major projects which focus on the development of approaches to ecological land classification and the application of the data to resource planning,

management, and environmental impact assessments. This series also includes the proceedings of workshops sponsored by the Canada Committee for Ecological Land Classification. Three reports have recently been published in this series. Report No. 6, The Northern Yukon: An Ecological Land Survey accompanied by two maps (1:1,000,000 and 1:500,000 scales) of the Northern Yukon, describes the ecoregion and ecodistrict units in the study area and also includes sections identifying outstanding physical and biological features and the recent history of man. Another project in the north is featured in Report No. 16, An Ecological Land Survey of the Lockhart River Map Area, Northwest Territories. This report with text and map insets describes the ecoregion and ecodistrict units of a 200,000 km^2 area encompassing the Lockhart River. Report No. 15 is The Environment of the CORTS Corridor - The Rideau Sector (CORTS is Canada-Ontario-Rideau-Trent-Severn). The results of a survey to gather an inventory of baseline data for the Rideau sector of the CORTS recreation corridor are included in Report No. 15. The land classification used describes the area according to land region, land district, and landscape unit delineations. The data generated is to be used in the preparation of a comprehensive land use plan for the corridor.

The Northern Land Use Information series is a co-operative program between the Lands Directorate, Department of the Environment, and the Northern Environment Directorate of the Department of Indian and Northern Affairs. Its main purpose is to assimilate all existing environmental and land use information and supplement it with new field surveys where necessary, in order to provide baseline information for regional planning and the application of the Territorial Land Use Regulations in the Northwest and Yukon Territories.

Several departments of the Federal government contribute information to this program (e.g. Fisheries and Oceans; Energy, Mines and Resources; Agriculture; etc.) as well as several departments from the Territorial government (e.g. Renewable Resources, Local Government, Economic Development and Tourism). The program also relies on the assistance of private research groups, consultants, and the local residents of the Yukon and Northwest Territories. Information is presented in map and text form and includes a wide range of environmental-social topics such as: wildlife habitat information, fisheries resources, native land use, ecological land classification, and a variety of other socio-economic and cultural data.

In the past year, twenty-nine map sheets (scale 1:250,000) were produced and published for the northern Baffin Island area, and research has been completed for a further twenty-nine maps in the Viscount Melville Sound area. The Land Use Information program (maps and background reports) will eventually be extended to cover all of Canada, north of 60°N, with the final maps and reports planned for publication in 1988-89. In addition, plans are being developed to produce northern perspective maps and reports on such subjects as caribou habitats, conservation areas, native land use areas, or other topics of general interest. These overview maps will be based primarily on information collected in the Land Use Information series and updated or amended where newer information is available.

There were no additions to the Map Folio series during 1982. The next publication, which should be available in April 1983 in both languages, is entitled Stress on Land. This study will result in a publication that will focus on man's stress on the land. Stress is defined as man's activities which have a negative impact on the land resource, affecting land use, land

value, or land capability.

The first chapter will introduce this concept of stress and describe the philosophy behind it. Another chapter will look at land as the subject of environmental law. The book will also present a national perspective on the following eight topics: 1) radioactive waste disposal, 2) sanitary landfills, 3) acid rain, 4) coastal and inland oil spills, 5) airports, 6) pits and quarries, 7) land degradation resulting from agricultural land-use practices, and 8) land degradation resulting from forestry land-use practices. The format for the publication will be a down-sized map folio presentation and will contain a detailed text as well as maps, photos, tables, and illustrative diagrams.

Four reports in the Land Use in Canada series were published during the past year. The series is designed to address the causes and consequences of major land problems and land use trends throughout Canada and reviews the impacts of various laws, regulations, and government programs on land use in Canada. Report No. 20, The Urbanization of Rural Land in Canada: 1966-71 and 1971-76 (Urbanisation des terres rurales au Canada: 1966-71 et 1971-76), focuses on the amount of rural land converted to urban uses, in eighty centres whose populations were greater than 25,000 according to the 1976 Census of Canada. The data are aggregated to provincial and national totals and provide information on the total amount of rural land converted to urban use, the former rural use of the converted land, and the capability of the converted land for agriculture, recreation, and forestry. Canada's agricultural land is the topic of Report No. 21, Agricultural Land Use Change in Canada: Processes and Consequences (Le changement d'utilisation des terres agricoles du Canada, ses procédés et conséquences). Using census data for the period 1961 to 1976, the report analyzes agricultural land use change in 229 regions of Canada. The results suggest that a major westward shift of farming has been accompanied by greater intensification of cultivation on the best agricultural land, and conversely, farms particularly in the east, on land less suited to intensive agricultural production, are being abandoned. Farms are generally getting larger and more heavily capitalized. The report also uses a regional study in the Saugeen Valley, in southern Ontario, to illustrate a pattern of rural land use and the factors that play a role in the decisions of individual landowners. CLDS was used to analyse land use change in the Saugeen Valley. Report No. 22, Mining Land Use and the Environment: A Canada Overview (L'exploitation minière l'utilisation des terres et l'environnement: vue d'ensemble sur le Canada), provides a national overview of mining land use activities by discussing the nature and extent of land degradation processes attributable to mining, their effects on neighbouring land resources, the potential for land use conflicts that may arise, and what progress has been made in the field of reclamation to reduce the effects of land disturbances.

A casebook approach was used in Report No. 25, Planning Land to Conserve Energy: 40 Case Studies from Canada and the United States (Planifier les terres pour conserver l'énergie), in order to document leading examples of energy-oriented land use planning practices in North America and also to identify current activities and key information sources. Although emphasis is on the urban and urbanizing areas, some regional and rural examples are also included.

The Working Paper series consists of reports which include either interim results or secondary products of major research themes. These reports are

inexpensive to produce, have a limited press run, and are usually specialized subjects which appeal to specific professionals or interest groups. The following titles will give you an indication of the wide variety of topics which have been added to the series during the past year.

No. 18 Earth Sciences of the Hudson Bay Lowland: Literature Review and Annotated Bibliography (Etude des basses des terres de la baie d'Hudson: Revue de la documentation et bibliographie annotée).

No. 19 Characteristics of Terrestrial Ecosystems Impinged by Acid Precipitation across Canada (Les caractéristiques des écosystèmes terrestres touchées par les précipitations acides au Canada).

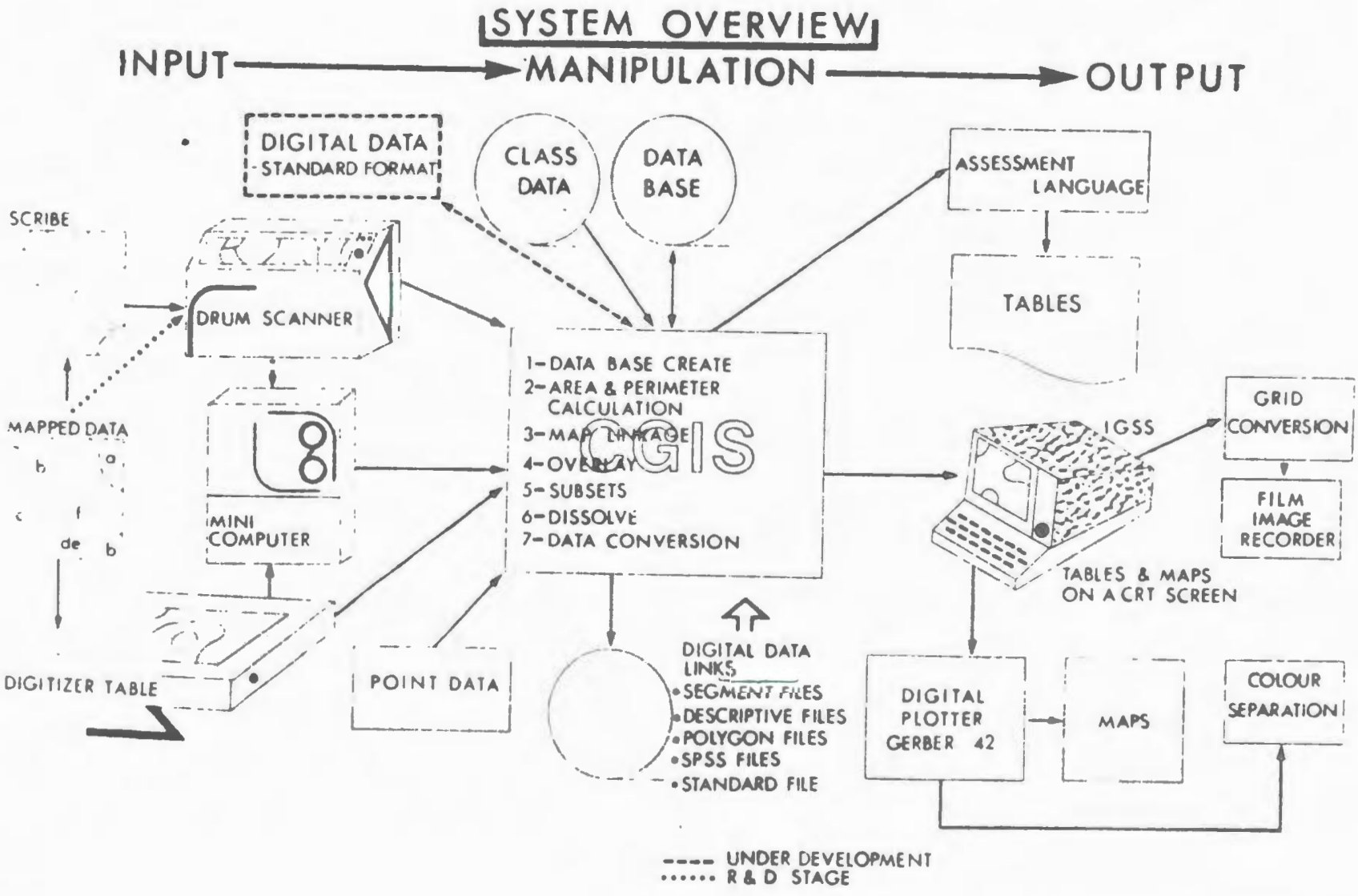
No. 20 An Inventory of Federally Maintained Land Data (Inventaire des données fédérales sur les terres).

No. 21 The Impact of Federal Activities on Fruitland Uses: Annapolis Valley (Incidences des activités fédérales sur l'utilisation des terres fruitières: vallée de l'Annapolis).

No. 22 The Impact of Exurbanite Settlement in Rural Areas: A case study in the Ottawa-Montreal Axis (Incidences de l'exode de citadins vers les zones rurales: étude de cas dans l'axe Ottawa-Montréal).

* * *

Figure 1 : CANADA LAND DATA SYSTEM (CLDS)



DEPARTMENT OF ENERGY, MINES AND RESOURCES
EARTH PHYSICS BRANCH
MAPPING PROGRAMS
1982

D.B. Hearty
Manager, Gravity Data Centre
Earth Physics Branch
Ottawa, Ontario

Introduction

The Earth Physics Branch (formerly the Dominion Observatory), Department of Energy, Mines and Resources, is comprised of three divisions: the Gravity, Geothermics and Geodynamics Division; the Division of Seismology and Geomagnetism, and the Pacific Geophysics Division (Pacific Geoscience Centre, Victoria, B.C.). The strategic objective of the Earth Physics Branch is to ensure the availability of geophysical data, information, technology, standards, and expertise concerning the configuration, evolution, structure, and dynamic processes of the solid earth and the hazards associated with natural and induced geophysical phenomena with special reference to the Canadian landmass. In pursuit of this objective five areas of study are organized and directed by the Earth Physics Branch. These are: Gravity, Geomagnetism, Geothermics, Seismology, and Geodynamics.

In support of the objectives of the Earth Physics Branch (EPB), a geophysical data base is maintained within each of the five areas of study. Computer plots are routinely generated from these data bases to provide scientists with various representations of stored digital data. The gravity and geomagnetic data bases are used to produce published thematic maps associated with the National Gravity Mapping Program and the National Geomagnetic Charting Program.

National Gravity Mapping Program

The objective of the gravity mapping program is to provide information on the variations in the gravity field in Canada in support of government research programs, the petroleum and mineral exploration industries, universities, and the public. This objective is accomplished through: (a) control network surveys; (b) reconnaissance, regional, and detailed gravity surveys; (c) instrumentation development; and (d) storage, retrieval, and display of gravity anomaly data.

The gravity mapping program had its beginnings in 1915 when measuring gravity (using pendulums) across Canada was encouraged for early geodetic studies. The results of these initial efforts are summarized in the Gravity Map of Canada, published in 1939 and containing 150 pendulum measurements. A new era in gravity mapping began in 1944 when the gravity meter supplanted the pendulum, and float equipped aircraft were used to carry out reconnaissance surveys at 50 km spacing in the hinterland areas of Canada. With the increase in collected survey data a national gravity data base was born to systematically store the data. By 1956 the first Gravity Map of Canada based primarily on reconnaissance data was produced. In 1957 the gravity mapping program was modified to make regional gravity measurements at 10-15 km intervals. Since that time many thousands of measurements have been made by EPB on land, underwater, on frozen sea or

lake ice, and on the open sea. In addition, a large number of open-sea measurements have been acquired by the Atlantic Geoscience Centre, a division of the Geological Survey of Canada. Other contributions to the data base have been made by various provincial government departments, universities, and mineral and petroleum companies.

The national gravity data base presently contains some 365,000 point measurements of the gravity field in Canada (see Figure 1). These data are made available on demand on magnetic tape or in the form of computer generated maps and listings. The data base is also used to produce several series of printed gravity maps. The earliest of these were the maps in the Gravity Map series which in many cases were accompanied by a research report (see Figures 2 and 3). Although some of the maps in this series are still available they are being replaced by the newer Gravity Manuscript maps, which are a by-product of the compilation of the Gravity Map of Canada 1980. These maps are produced at a scale of 1:1,000,000 and contain anomaly contour lines and station positions (see Figure 4). In addition, a series of Open File Gravity maps (see Figure 5) are also produced which enable newly acquired data to be disseminated as quickly as possible. These maps are ozalid copies of digital data at various scales and projections depending on the survey area and types of data displayed.

All of the above published maps are available through the Gravity Data Centre, Earth Physics Branch, at nominal charges. The Gravity Map of Canada 1980 is a summary document of available gravity coverage which is updated every eight to ten years and published in colour at a scale of 1:5,000,000. This map is available through the Canada Map Office, Surveys and Mapping Branch, Department of Energy, Mines and Resources, 615 Booth Street, Ottawa.

National Geomagnetic Charting Program

The objectives of the national magnetic charting program are: to provide information on the temporal variations of the geomagnetic field over all areas of Canadian sovereignty by operating and maintaining the Canadian Geomagnetic Observatory Network; to measure the direction and intensity of the geomagnetic field at a network of repeat station sites distributed throughout Canada; and to maintain an up-to-date data base and description of the geomagnetic field over Canada and adjacent offshore regions in order to provide information on the magnetic declination and its annual change for navigation purposes.

The magnetic charting program was begun by the Dominion Observatory (later Earth Physics Branch) in 1907 with a series of vector observations to determine the secular variation of the magnetic field. These results enabled the observatory to use accumulated older data from the Topographic Survey, from Lt. J. H. Lefroy of the Royal Artillery, and even from the early explorers. However, it was not until after the Second World War that the Dominion Observatory assumed responsibility for the publication of magnetic charts from the Topographic Survey of Canada, which had published most charts to that time. In 1952 a high-level (airborne) magnetic survey of Canada was commenced, and in 1955 the Observatory published a set of five charts: declination (D), inclination (I), horizontal force (H), vertical force (Z), and total force (F). This set a pattern which is still followed today; declination charts are published at five-year intervals and the others are published at ten-year intervals.

The most widely distributed map is the declination chart which is used in magnetic compass corrections for navigation purposes (see Figure 6). The data on which this map is based are distributed to various government agencies involved in the production of topographic, aeronautical, hydrographic, and geological maps.

Copies of all published magnetic charts which have been issued in Canada to date can be viewed at the Public Archives in Ottawa. The most recently published maps are available at the Canada Map Office, Department of Energy, Mines and Resources, 580 Booth Street, Ottawa.

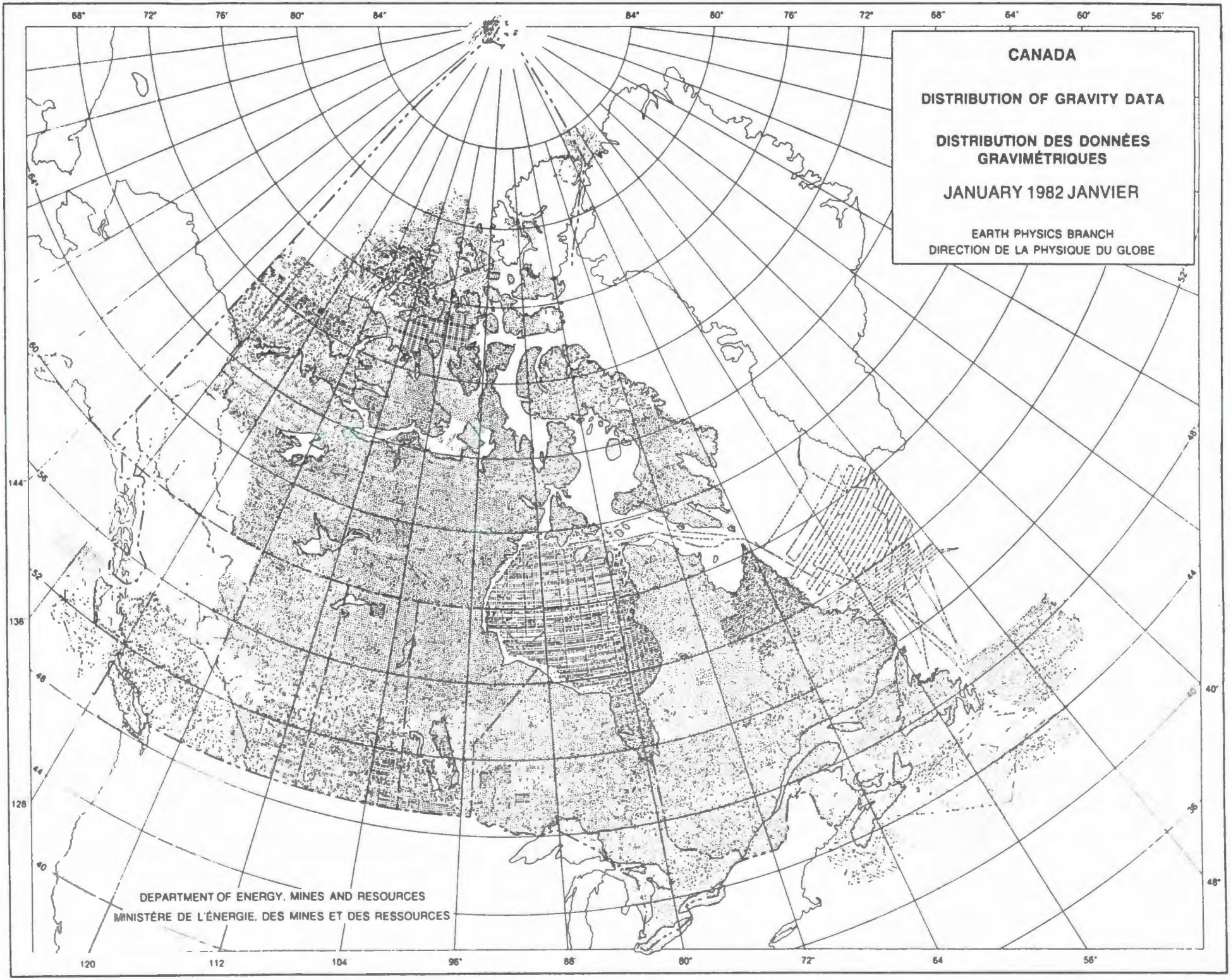
Seismology Program

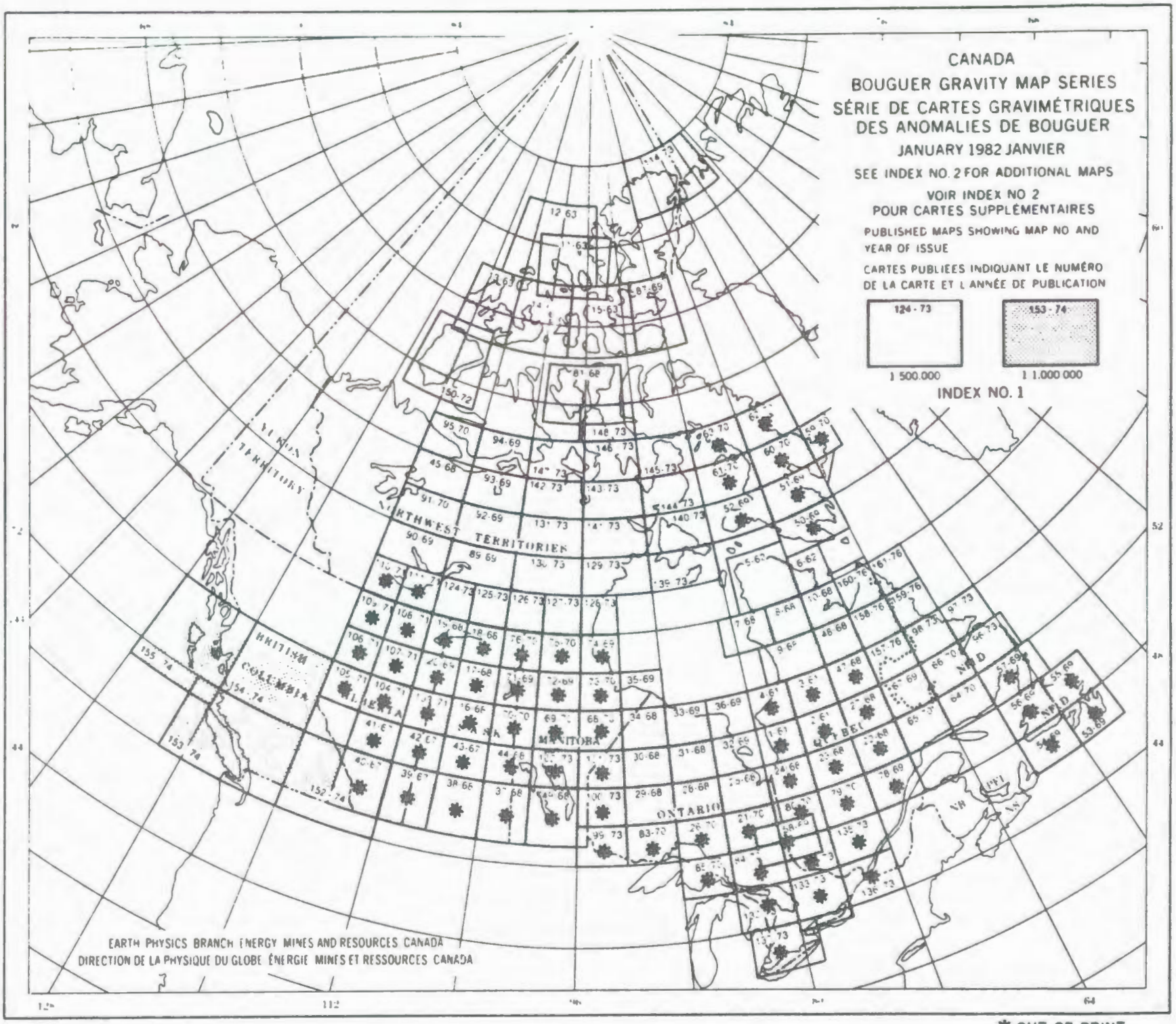
The objectives of the seismology program are to operate and maintain the Canadian Seismograph Network to international standards capable of detecting and locating all earthquakes in Canada and its offshore areas above magnitude 3.5 and to ensure the preservation and dissemination of Canadian seismological data and information.

In support of these objectives the seismology program maintains a storage, retrieval, display, and dissemination facility for Canadian earthquake data. These data are available through annually published catalogues and computer-generated plots (Figure 7); thematic maps are not routinely published. In 1970 a new seismic zoning map of Canada was published showing zones of seismic risk (Figure 8).

Most enquiries pertaining to seismicity data are of a consulting nature regarding the causes of seismic disturbances and the potential for future seismic activity based on available earthquake information. Major users of the data base information are federal and provincial government agencies, universities, and private industry involved in special facilities planning such as nuclear power stations, pipelines and dams, and private industry constructing any facility under the regulations of the National Building Code for Canada.

* * *


CANADA
DISTRIBUTION OF GRAVITY DATA
DISTRIBUTION DES DONNÉES GRAVIMÉTRIQUES
JANUARY 1982 JANVIER
EARTH PHYSICS BRANCH
DIRECTION DE LA PHYSIQUE DU GLOBE
DEPARTMENT OF ENERGY, MINES AND RESOURCES
MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RESSOURCES


CANADA
BOUGUER GRAVITY MAP SERIES
SÉRIE DE CARTES GRAVIMÉTRIQUES
DES ANOMALIES DE BOUGUER
JANUARY 1982 JANVIER
SEE INDEX NO. 2 FOR ADDITIONAL MAPS
VOIR INDEX NO 2
POUR CARTES SUPPLÉMENTAIRES
PUBLISHED MAPS SHOWING MAP NO AND YEAR OF ISSUE
CARTES PUBLIEES INDIQUANT LE NUMÉRO DE LA CARTE ET L ANNÉE DE PUBLICATION
124 - 73
1 500.000
153 - 74
1 1.000 000
INDEX NO. 1
EARTH PHYSICS BRANCH ENERGY MINES AND RESOURCES CANADA
DIRECTION DE LA PHYSIQUE DU GLOBE ÉNERGIE MINES ET RESSOURCES CANADA
NORTHWEST TERRITORIES
ONTARIO
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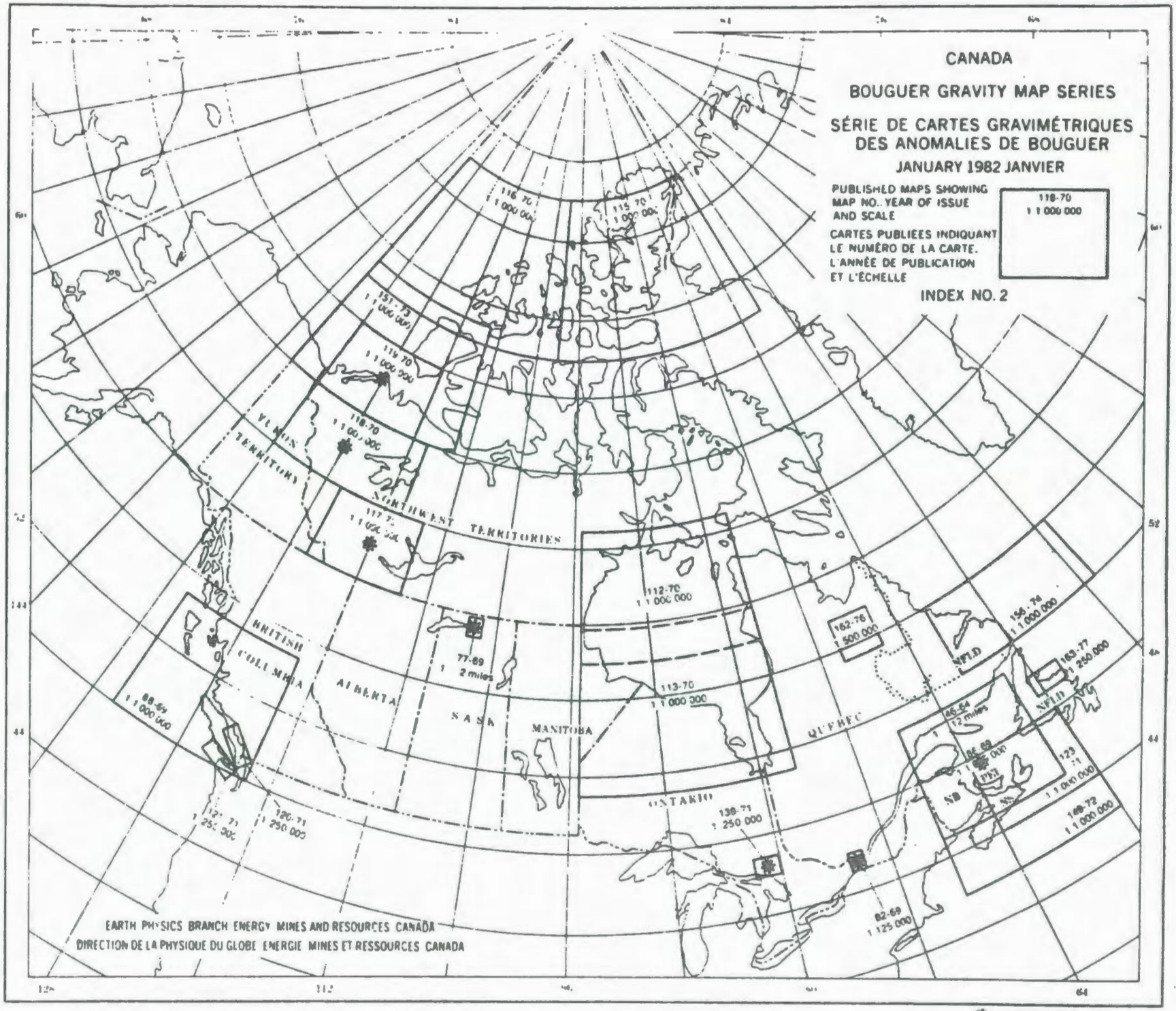
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BOUGUER GRAVITY MAP SERIES
SÉRIE DE CARTES GRAVIMÉTRIQUES DES ANOMALIES DE BOUGUER
JANUARY 1982 JANVIER
PUBLISHED MAPS SHOWING MAP NO., YEAR OF ISSUE AND SCALE
CARTES PUBLIEES INDIQUANT LE NUMÉRO DE LA CARTE, L'ANNÉE DE PUBLICATION ET L'ÉCHELLE
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116-70 1 1 000 000
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114-70 1 1 000 000
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YUKON TERRITORY
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112-70 1 1 000 000
162-76 1 500 000
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163-77 1 250 000
NFLD
77-69 1 2 miles
113-70 1 1 000 000
BRITISH COLUMBIA
ALBERTA
SASK
MANITOBA
ONTARIO
QUEBEC
66-64 12 miles
66-69 1 1 000 000
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PEI
NB
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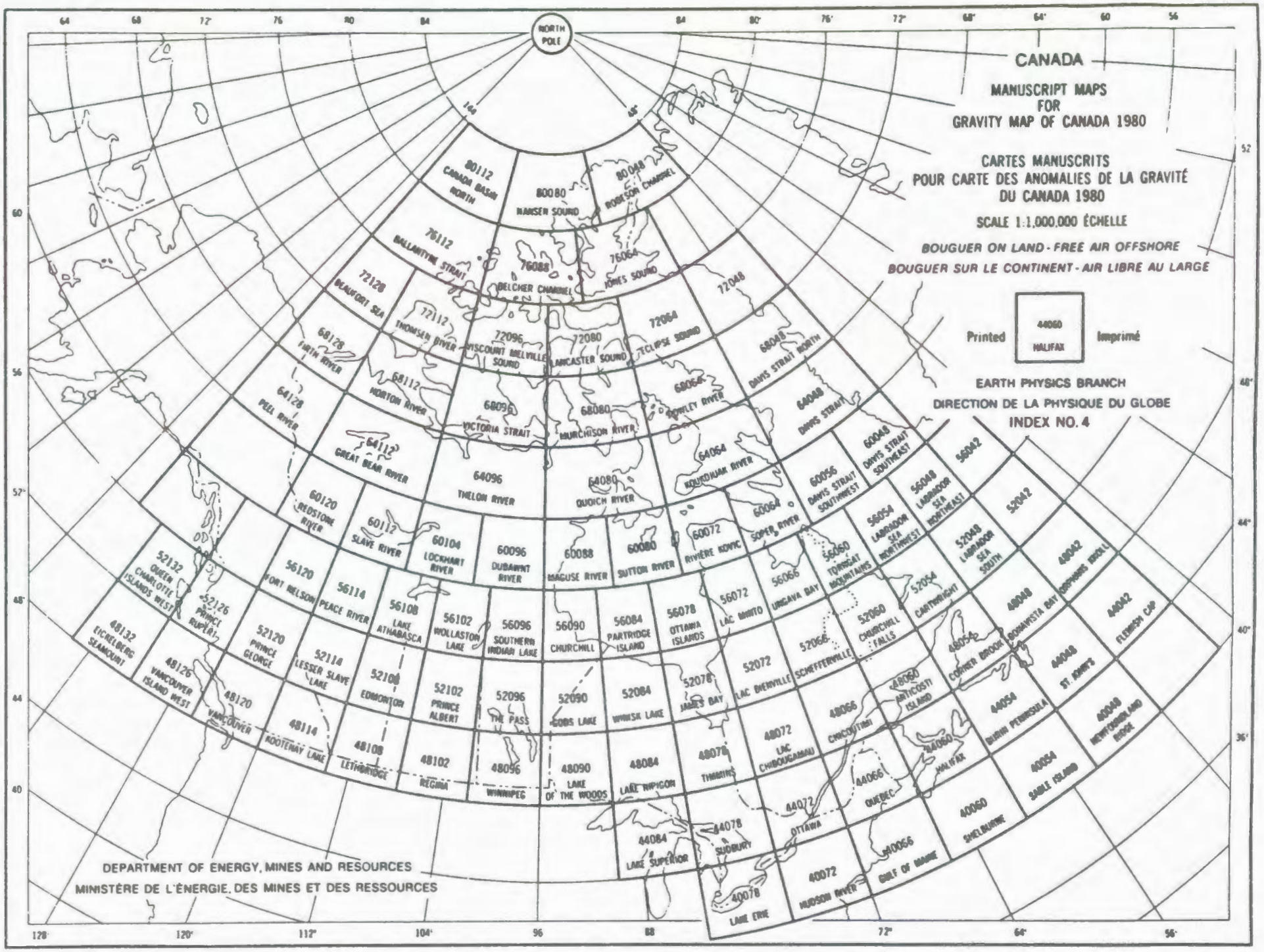
CANADA
MANUSCRIPT MAPS
FOR
GRAVITY MAP OF CANADA 1980
CARTES MANUSCRITS
POUR CARTE DES ANOMALIES DE LA GRAVITÉ
DU CANADA 1980
SCALE 1:1,000,000 ÉCHELLE
BOUGUER ON LAND - FREE AIR OFFSHORE
BOUGUER SUR LE CONTINENT - AIR LIBRE AU LARGE
Printed
44060
HALIFAX
Imprimé
EARTH PHYSICS BRANCH
DIRECTION DE LA PHYSIQUE DU GLOBE
INDEX NO. 4
DEPARTMENT OF ENERGY, MINES AND RESOURCES
MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RESSOURCES
NORTH POLE
80112 CANADA BASIN NORTH
80080 NANSEN SOUND
80048 ROBESON CHANNEL
76112 BALLANTYNE STRAIT
76088 BELCHER CHANNEL
76064 JONES SOUND
72128 BEAUFORT SEA
72112 THOMSEN RIVER
72096 VISCOUNT MELVILLE SOUND
72080 LANCASTER SOUND
72064 ECLIPSE SOUND
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68112 HORTON RIVER
68096 VICTORIA STRAIT
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60072 RIVIÈRE KOKIC
60064 SOPER RIVER
60056 DAVIS STRAIT SOUTHWEST
60048 DAVIS STRAIT SOUTHEAST
56042
52132 QUEEN CHARLOTTE ISLANDS WEST
52126 PRINCE RUPERT
56120 FORT NELSON
56114 PEACE RIVER
56108 LAKE ATHABASCA
56102 WOLLASTON LAKE
56096 SOUTHERN INDIAN LAKE
56090 CHURCHILL
56084 PARTRIDGE ISLAND
56078 OTTAWA ISLANDS
56072 LAC MINTO
56066 UNGAVA BAY
56060 TORNGAT MOUNTAINS
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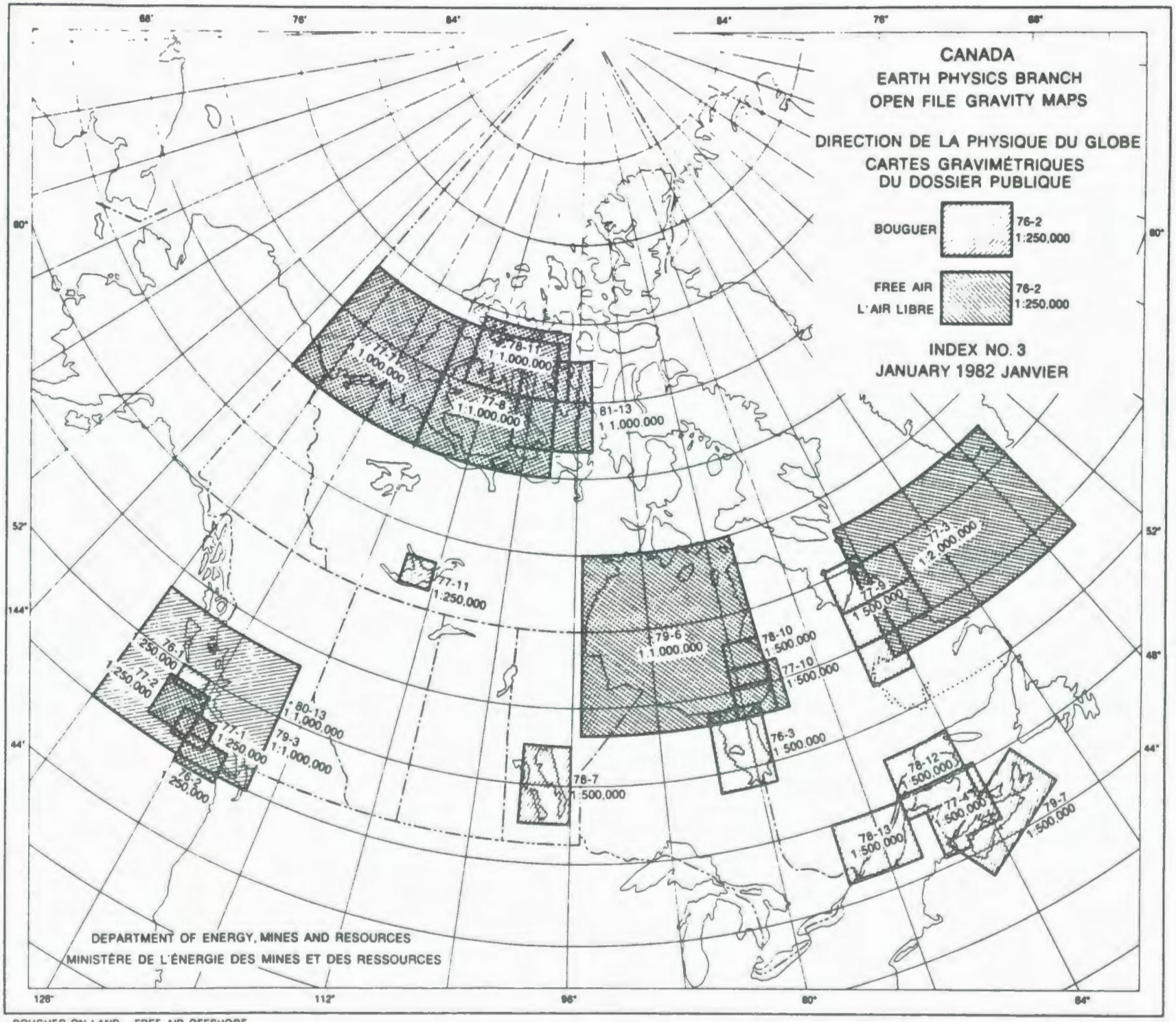

* BOUGUER ON LAND — FREE AIR OFFSHORE
BOUGUER SUR LE CONTINENT — AIR LIBRE AU LARGE

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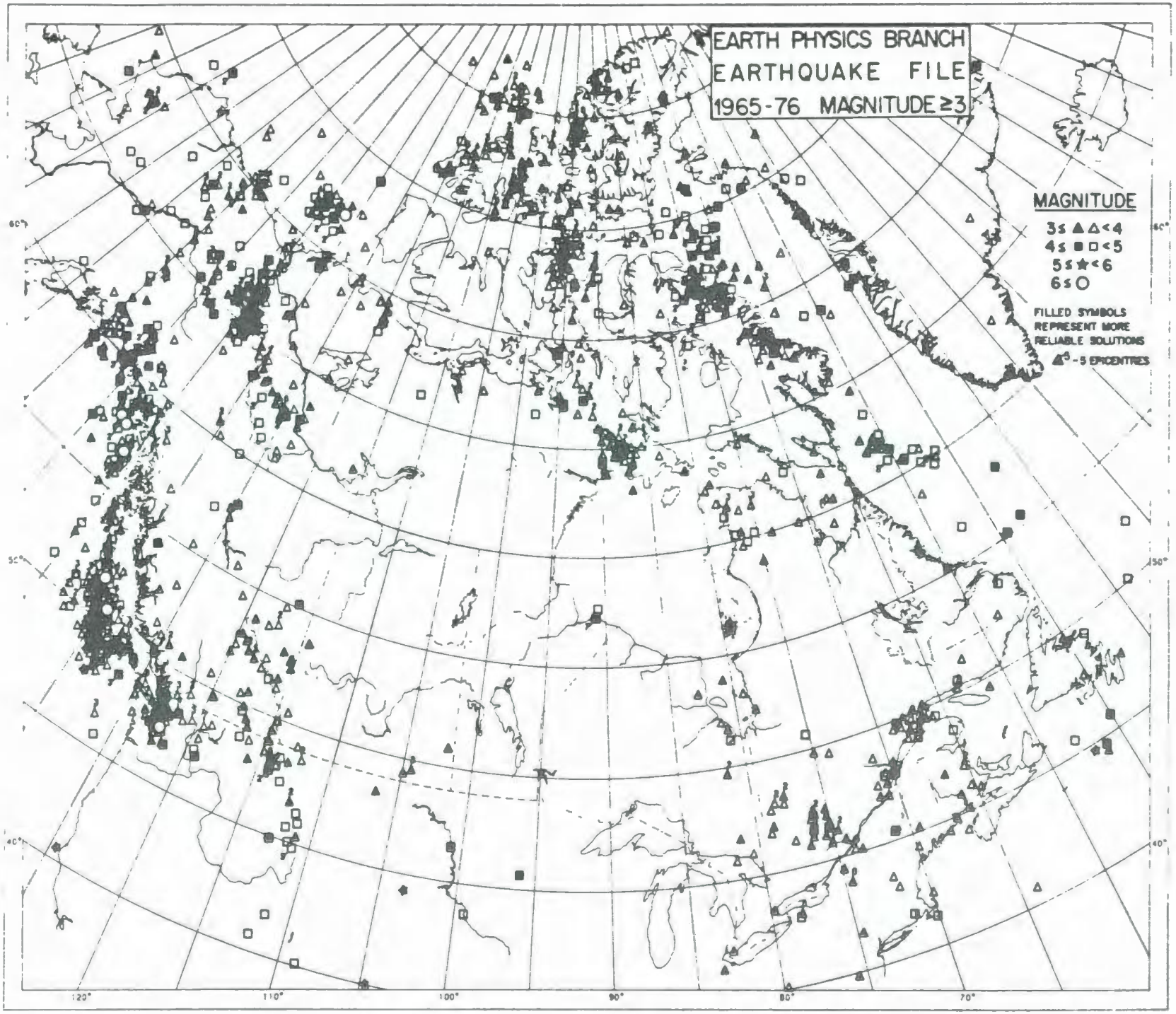
EARTH PHYSICS BRANCH
EARTHQUAKE FILE
1965-76 MAGNITUDE ≥3
MAGNITUDE
3≤ ▲ △<4
4≤ ■ □<5
5≤ ★<6
6≤ ○
FILLED SYMBOLS REPRESENT MORE RELIABLE SOLUTIONS
4^{3}-5 EPICENTRES
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50°
40°
120°
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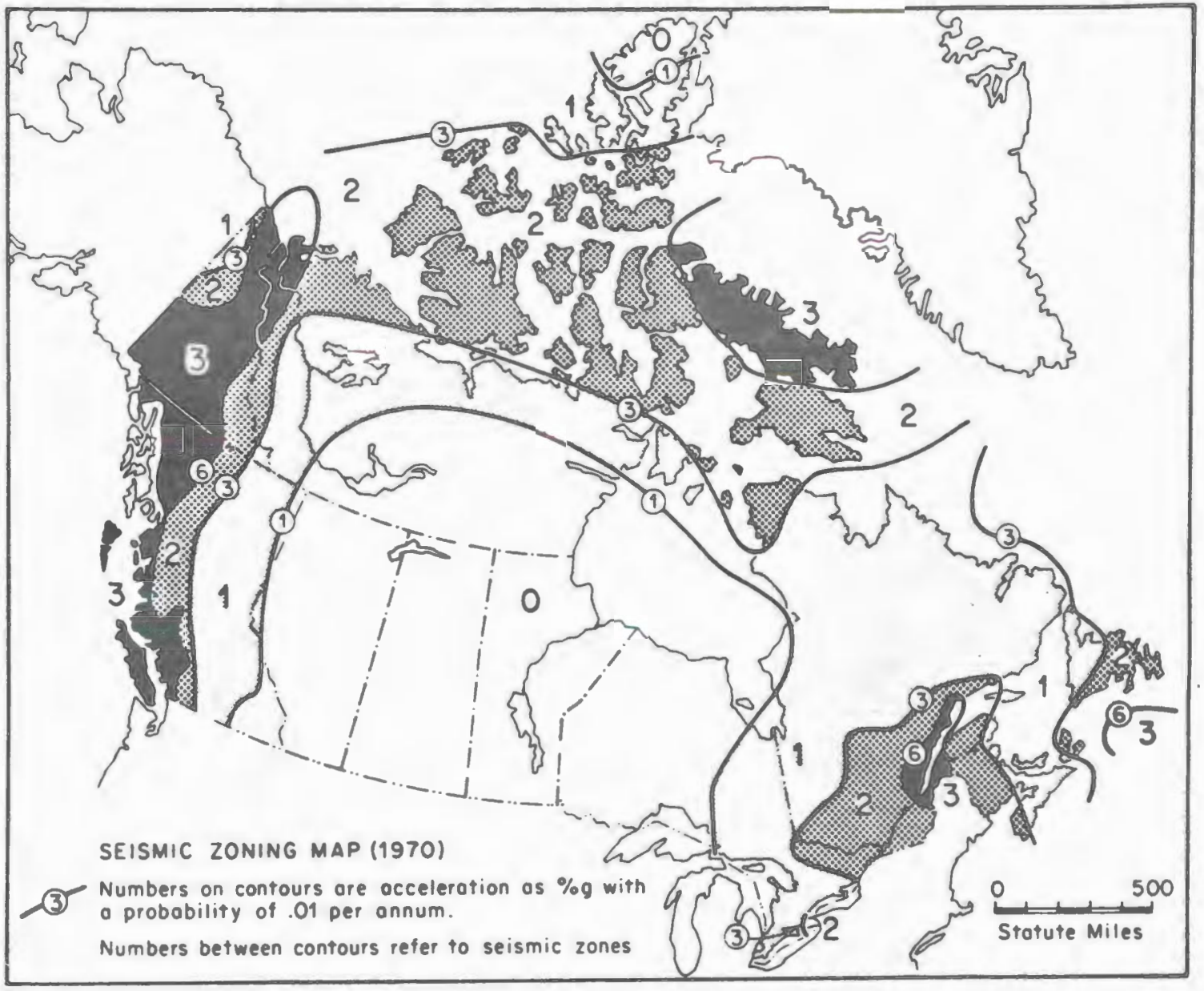
90°
80°
70°


SEISMIC ZONING MAP (1970)
Numbers on contours are acceleration as %g with a probability of .01 per annum.
Numbers between contours refer to seismic zones
0
500
Statute Miles

CANADIAN HYDROGRAPHIC SERVICE CHARTING PROGRAMS

The Canadian Hydrographic Service (CHS) has various charting programs under its auspices. While all maps and charts are thematic in principle and, as such, are designed to meet the specific requirements of the users, the CHS is not tied into any one particular theme. Its mandate covers commercial navigation charts, small-craft charts, and Natural Resource maps as well as related publications such as the Weekly Notices to Mariners, Sailing Directions, and Current Tables. Each of these must adhere to particular guidelines as set out in federal or departmental programs. These include the metrication, automation, and bilingualization programs. As well, the CHS has agreed to follow as much as possible, the guidelines of the International Hydrographic Organization (IHO).

In 1975, a decentralization program was announced that would see over the following three years a gradual transfer of CHS Headquarter personnel to the four regional offices in Halifax, Quebec, Burlington, and Victoria. At the outset, new working units had to be established, checkers appointed, and regional charting programs initiated. As well, affected families had problems of their own to resolve, i.e. selling and buying of homes, registering their children in new schools, contacting different doctors and other everyday disruptive factors occasioned by this relocation. As a result of such problems, the program initially had an adverse effect on chart production. However, over the following years as offices and families settled in, production rebounded appreciably.

The CHS has programmed a five-year chart production schedule for new charts, new editions, and reprints. It is anticipated that approximately 125-140 new charts, 225-250 new editions, and 600-700 reprints will be published from 1981 through 1985. This ambitious program puts a heavier accent on new charts than we did in the past. The higher percentage of man-years allocated to this category will have an end result of fewer new editions being produced and therefore a greater dependence on the "Notices to Mariners/reprint" method of informing mariners of important navigational changes.

Metric Program

The IHO adopted its first technical resolution regarding metric conversion in 1919; this recommended that all countries switch to the metric system as soon as possible for use on their nautical charts and publications. The CHS unofficially began to experiment with metrication in the late 1960s and early 1970s, even before the federal government decided to adopt the metric system as the official unit of measurement for Canada. However, its usage was not widespread and it was not until the mid-1970s that the service formulated a policy enabling cartographers to apply a safe and uniform conversion factor to depths and heights for final presentation on a nautical chart. Various methods were considered including the simplest and most obvious, the direct conversion of existing charted data based on the imperial system of measurement. Following this in-depth assessment, it was concluded that the only precise and practical method was implementation at the new-chart stage. This in effect required the retrieval, assembly, evaluation, and correlation of all pertinent source data. Presently there are approximately 192 charts printed in metric units which amount to 17.5% of existing CHS charts.

Contour-Style Charts

The decision to compile all future metric charts at the new-chart stage coincided well with another major evolution within the CHS, that of the contour-style format. Under this presentation, fewer soundings are selected and more depth contours developed. This interpretation of the submarine physiography places a relatively heavier reliance on linear interpolation as the charted information is generally spaced further apart. As well, contour-style charts show the bathymetry as continuous blue lines accompanied by depth designators rather than the traditional black symbolized contours.

A further major revision of significance to the mariner is a reversal in the method the CHS uses to portray reliable and less reliable data. Previously, the policy was to chart reliable data in upright type and less reliable data in sloped or italic type. The reverse now applies. These changes were made to accommmodate the metric and contour-style formats and to present to the mariner a clearer, less congested depiction of the hydropgraphy. There are approximately 50 commercial navigation charts printed under this format--this amounts to only 4.5% of the total number of CHS charts. A further 75 (approx.) small-craft strip charts are published showing a modified version of the contour-style format. While these depict the bathymetry as continuous blue lines, the density and spacing conventions relating to sounding selection more closely resemble the older method of presentation, i.e. more soundings and less interpolation. The combined count is therefore 125 charts in this format or 11% of the total.

Bilingual Program

In 1965, the federal government decided to officially adopt bilingualism within the public service. A departmental push was then initiated in order to ensure that the travelling public was provided with the necessary services in the language of their choice. However, by 1971, the CHS still had in stock only one chart printed in both official languages, and that in separate English and French versions. In February of 1972, Sorel Harbour became the first truly bilingual chart published by our service. However, our knowledge at this time was fairly limited with regard to the approved or commonly used nautical terminology in French foreign hydrographic offices. The resulting translations, while not necessasrily wrong, were at best inconsistent with international usage. During the ensuing years, a French nautical specialist was appointed to review these inconsistencies and to recommend ways and methods to resolve this problem. As a result, a catalogue of bilingual notes and cartographic terminology was compiled and issued to chart-construction personnel as an in-house document to facilitate and standardize bilingual charting. Presently there are 320 charts issued in bilingual format, accounting for 29% of our nautical charts.

Automation

The CHS has used computers as an aid to chart production for many years. Initially, they were used to compute calculations previously done manually or mechanically. In 1971, the first high-quality drafting system was introduced as an aid in the chart-construction phase, and its application to automatically drawn, mathematically based graphics was highly successful. The interactive digitizing and editing process (GOMADS), while slower to advance past the development stage, has reached a point where

most of the major problems have been resolved and it now serves a useful function as an integral part of the automated drawing system. However, while a significant percentage of the recent incoming field data is in digital form, the majority of the sources used in the construction of a new chart are not in a computer compatible form. These include field data from surveys made prior to the use of data acquisition logging systems, as well as all outside source data from government agencies, private companies, and Hydro. This hard copy information must therefore be digitized in order to produce a mathematically based, automatically drawn chart.

At present, the advent of the computer in the cartographic field serves principally as an aid to drafting rather than compilation. The mosaicing process, sounding selection, adjustment and conversion, contour development, as well as other compilation-related functions remain basically manual tasks. Consequently, the next major phase of our development must be centred on the application of "interactive compilation" to the extent that we can make use of this new data without having to revert to hard copy. The term "interactive compilation" is used to describe the process whereby computer-controlled hardware is used in place of traditional methods to change the presentation of the data through selection, generalization, and interpretation and could be considered as a glorified but more complex form of "interactive editing." Note, however, that if the compilation function consists of using charts already in digital format, i.e. large-scale charts previously digitized and stored on digital chart files, then the need for manual chart compilation is redundant, with changes and/or selection of data accomplished using the GOMADS editing system.

Another program which is an important facet of the overall computerized operation is MOSAIC. This program has the capacity to combine various digital files on a graphical basis and convert the input data to a different specified scale and projection. This step in effect eliminated a very time-consuming manual task. In future, it may be possible to make a computerized selection of the survey data similar to that used by hydrographers to generate field sheets from raw data. At this time, the digital library comprises seventeen chart files which are maintained with the interactive graphic systems and serve as a base source for overlapping and smaller-scale charts.

Geoscience Section

The Geoscience arm of the CHS has the responsibility of producing the Natural Resource maps (NRM), a series which is based on the National Topographic System of mapping at a scale of 1:250,000. Several different types of maps produced from the survey data are specifically designed for the section of the marine scientific and engineering community whose prime interest is the seafloor and the material within and beneath it.

The shape of the seafloor is described by bathymetry and morphology maps, seafloor materials by surficial geology maps, and gravity and magnetic fields by means of contour maps.

There are approximately 500 NRMs in the complete series of which 125 have been published.

A second task of the Geoscience Section was the publication of the General Bathymetric Chart of the Oceans (GEBCO), 5th edition. The Government of Canada undertook this international commitment eight years ago, culminating

in the spring of 1982 with the publication of the final sheet of the series of 18 of which 16 sheets depict the bathymetry of the world's oceans at 1:10,000,000; there are 2 polar sheets at 1:6,000,000. These charts were produced by the CHS for the IHO in collaboration with the International Oceanographic Commission of Unesco. They are of value to oceanographers, engineers, geophysicists, hydrographers, and maritime legal experts. A recent example of their use in the intensive search for deep-sea mineral deposits was the discovery of the Hibernia oil fields off Newfoundland.

The CHS has also accepted responsibility for the production of a world sheet at 1:30,000,000. This sheet as well as the other eighteen, together with a supporting volume, will be included in a book-shelf "boxed set" of all individually folded charts in the GEBCO series. The supporting volume will contain details such as specifications, legend, credits, nomenclature, role of the IHB as a world data centre for bathymetry, attributions, copyright and sales arrangements, and so on. This set will be made available to libraries and educational establishments.

Training and Standards Division

While not necessarily a "charting program" as such, this division is responsible for the formulation, development, and promulgation of Cartographic and Survey Standing Orders. These SOs govern the way the CHS implements various cartographic and survey programs and generally touch each and every aspect from data acquisition to data assessment, manipulation, and presentation. This division is also charged with the development and publication of drafting standards showing the permitted line weights, colours and dimensions of chart symbology.

Another major function is the formalized training of new and existing personnel through career-development courses. Successful completion of Hydrography I and II form part of the basic criteria applied by regional offices when considering retention of junior personnel and/or promotion of senior hydrographers to positions with supervisory responsibilites. At present, these two courses are only available in English but their French equivalents "Hydrographie I et II" are being studied.

Cartography I has been given in English since 1976; Cartographie I in French was made available for the first time in 1982. While senior cartographers need not have taken this course (grandfather clause), it was strongly recommended that they do so. Successful completion of Cartography I is a criterion when consideration is given to retention of new personnel and promotion to more senior cartographic positions. The first Cartography II (English) course is planned for the fall of 1982.

International Association of Lighthouse Authorities

In accordance with the new buoyage systems recommended by the International Association of Lighthouse Authorities (IALA) and supported by the IHO, the Canadian government has agreed to adopt the IALA System B of buoyage. Beginning in 1983, Transport Canada (TC) will be introducing in Canadian waters a new worldwide buoyage system which includes both lateral and cardinal buoys. This requires both the physical change of buoys in the field by TC and involves extensive revisions to their charted symbology. In order to avoid confusing the mariner, this conversion is planned to be completed over as short a period as possible. As well, affected charts are to carry a warning note outlining these changes and making the mariner

aware of supplementary information available. Briefly, this involves the lifting and painting of all buoys, i.e. port-hand buoys (green), starboard-hand buoys (red), cardinal buoys (black and yellow in sequential order identifying the points of the compass), and so on.

Conclusion

The metric, bilingual, and contour-style programs have barely scratched the surface of the total work output required. Automation is continuing and will continue to make important advancements in computerized graphics. Geoscience's GEBCO is adhering to pre-determined international time schedules and its NRM series will continue to be an integral part of the overall package requirement of the maritime community. Training and Standards has a seemingly never-ending task to update existing standards and promulgate new ones as well as to provide the continuing training programs required to ensure that CHS personnel maintain a high degree of expertise.

This paper has touched on only a few of the service's programs. We have not studied data acquisition (surveying), Notices to Mariners, Chart Corrections, Sailing Directions, etc. While the CHS is making large steps in the right direction, it is evident that there is still much work left to be done in the never-ending, changing world of marine navigation.

* * *

GEOLOGICAL SURVEY OF CANADA MAPPING PROGRAM 1982/83

P.J. Griffin
Geological Survey of Canada
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Unlike the Surveys and Mapping Branch, the Geological Survey's major activity is not the production of maps although maps are important to us. Many of the maps produced by the GSC form just one output of a research project. They are simply one way of presenting data and observations. A geological map may be only one of several graphical illustrations making up a comprehensive report of several hundred pages, which may also contain considerable tabular data, numerous analyses, photographic plates, etc. Thus although GSC geological maps are, for convenience of indexing, placed in two series (a multicoloured, terminal series and a monochrome or two-colour preliminary series) there is no overall plan for producing geological maps in any specific order. Our cartographic section produces maps in response to the demands generated by the outputs of the Survey's scientific divisions.

The GSC started the post-World War II period with the objective of completing the bedrock geological reconnaissance of Canada within twenty years and by the early 1970s all parts of Canada had been examined and maps at the scales of 1:1 million or, more commonly, 1:500,000 were available. Our present program involves detailed studies of specific areas to better our understanding of the geology of Canada and our mineral resources. Much of this work will result in 1:250,000 scale maps but there is no long-term

plan to produce Canada-wide coverage at this scale. Our resources are just not sufficient and many areas, for example the interior plains, do not warrant coverage at this scale.

During 1982/83 we expect to publish about forty-five multicoloured geological maps, thirty-five monochrome maps, and in co-operation with the Canadian Hydrographic Service, forty marine charts.

Work on our 1:1 million Geological Atlas of Canada has been dormant since 1979 due to the sudden death of the project co-ordinator. To date eight maps have been produced using the NTS 8-degree sheets. A new co-ordinator was appointed last month and it has been decided to use the IMW 1:1 million series as our base for future maps. This move to the 6-degree sheets will facilitate comparison of our geological maps with, for example, bathymetric maps of the offshore areas or gravity maps being produced by other federal agencies. We plan to reissue the already published sheets and anticipate that the first new 6-degree sheets will be published in about two years. The first areas to be covered will be in northwestern Canada and the Arctic where compilation is well advanced.

Our aeromagnetic mapping program is another program whose principal objective has been to produce maps. Since the joint Federal-Provincial program started in 1947 more than 8,000 maps have been produced. Most of these are at 1:50,000 but compilation of a 1:1 million series is underway. We expect to publish eighty-five new 1:50,000 maps this year and several 1:1 million compilation maps.

Many maps were issued between 1976 and 1979 as part of the National Geochemical Reconnaissance program. These are multiparameter maps (usually separate maps for about thirteen chemical elements). Because of the limited demand for any given map, these maps were made available to the public on an "on demand" basis through our "Open File" series. Between 1976 and 1979 nearly 900 maps were produced; in the current year we expect compilations at 1:2 million to be published for between fifteen and twenty areas in widely separated parts of Canada. These compilations will be produced in booklet form in our Paper series.

The GSC is a participant in the Geological Society of America's "Decade of North American Geology" which includes the compilation and publication of a series of thematic maps which will include bedrock geology, surficial geology, tectonics, and aeromagnetic anomalies. As these will cover all of North America we plan to use the Canadian component to replace GSC's existing 1:5 million series. We expect the new maps to be published between 1984 and 1988.

* * *

STATISTICS CANADA
CENSUS MAP LIBRARY

D. Ross Bradley
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Statistics Canada
Ottawa, Ontario

The Census of Canada has often been referred to as the largest peacetime operation of the Government of Canada. The reason is that some 40,000 persons are mobilized for a short period of time to contact every household in Canada so that an inventory of the population of Canada and its housing can be made. The Census of Canada occurs every five years, the most recent being the 12th decennial census, June 3, 1981.

To ensure complete coverage for the Census of Canada, every square kilometre of the country must be covered by its army of enumerators, who will knock on the doors of the more than eight million Canadian households. Maps are essential for the collection of census data; without them there would be complete chaos in the census collection activity, with some areas being missed and others being counted more than once.

It is my pleasure to be able to speak to you today about the maps we have in the Census Map Library at Statistics Canada.

Maps for collection activities of the 1961 census and before were obtained from municipalities in Canada and from the National Topographic Series of Energy, Mines and Resources Canada. These maps and their related documentation were filed away in cabinets, shelves, bulky cardboard cartons or whatever and were difficult to access by users. Copies were practically impossible to make because they were not prepared originally on reproducible material. Nevertheless, the demand for access to them and the need for copies to be made for a variety of reasons grew. In 1964, it was decided that maps for census tracts for some of the large urban centres would be drafted on mylar, a durable map base, thus allowing for easy reproduction. In 1976, a diazo machine was purchased as well as a large number of map-filing cabinets.

Statistics Canada was now in a position to produce copies of maps for census tracts and to store them in a proper manner. A census tract is a permanent, small geographic area established in large urban communities (50,000 population and over) with the aid of local specialists interested in urban and social science research. On the average, there are about 4,000 people in a census tract; the area should be as homogeneous as possible in terms of economic status and social living conditions, with as compact a shape as possible.

The demand grew for maps other than the census tracts maps, for a selected number of large centres. Soon Statistics Canada was able to obtain from Energy, Mines and Resources a cronaflex base for all topographical maps. With the addition of a small drafting unit in 1966, census tract diagrams became available for all tracted centres as well as other smaller urban centres. The Census Map Library came into existence for the 1971 Census, the first census where we were able to produce and store maps for collection operations and to reproduce any map for users requiring this service. Requests soon became more sophisticated. Users were wanting copies either enlarged or reduced in size. An Itek copy machine was

acquired in 1971 to allow for this, and later microfilm readers and printers.The contents of the Census Map Library are built around three basic map series.

1. Rural series--showing enumeration areas on National Topographic Series map bases received from Energy, Mines and Resources (Figure 1).
2. Small Urban series--town plans received from municipal planning departments (Figure 2).
3. Census Tract series for large urban centres of 50,000 population and over, drawn from maps obtained from municipalities (Figure 3).

The following table shows the number of map pieces for basic map series for Census of Canada Collection Operation 1971, 1976, and 1981.

Year	Rural	Small Urban	Census Tract
1971	1200	1000	2100
1976	1200	1500	2600
1981	1200	2500	3300
Total	3600	5000	8000

These basic series translate into individual enumeration area maps numbering 42,000 in 1971, 35,000 in 1976, and almost 41,000 in 1981.

Some other widely sought-after maps from the Census Map Library are those for federal electoral districts showing the individual enumeration areas (Figure 4). The reason, of course, for the popularity of maps like these is the availability of census data at the level of the enumeration area. An enumeration area is that geographical area for which one enumerator (census representative) is responsible at census time. There were some 41,000 enumeration areas (average population of 600 persons) in Canada for the 1981 Census. These maps are on mylar--and easily reproducible. Reference maps are also available for census metropolitan areas (Figure 5) and census agglomerations (Figure 6). Figure 7 is a census tract index map. While these are published in bulletins of the Census publication program they are nevertheless available in single fashion to satisfy users' particular needs. All maps used for censuses prior to 1971 have been removed to the Public Archives of Canada for historical safekeeping.

The Map Library at Statistics Canada with its machinery components is a hive of activity. The following table gives an example of the volume of work that is processed through the intercensal cycle from 1978/79 to 1981/82.

	White Print Copies	Itek Copies
1978/79	49,830	12,300
1979/80	37,280	16,937
1980/81	100,673	26,868
1981/82	35,831	27,407

Users of the Census Map Library, in addition to the census operation itself, are varied and numerous. The following are but a few of the types of users who have been served over the past year:

- municipal engineering and planning departments;

- universities;
- marketing research agencies
- survey research corporations
- chief electoral officer;
- police departments;
- media networks;
- hospital boards.

To obtain any of the maps already described, one needs only contact any of the User Advisory Services, either at the head office of Statistics Canada, Ottawa, or any one of its eight regional offices strategically located across Canada. Their availability is described in the brochure "Products and Services of 1981 Census of Canada," which you will find at the Statistics Canada display.

What does the future hold for the Map Library at Statistics Canada? We can be sure that computerization will have a significant effect for the next census, which will take place in 1986. Already a small sample of the census tract maps have been produced by computer-assisted means (Figure 8). The plan at present for the 1986 Census is that approximately 1,000 maps such as these will be produced by automated means. Automated cartography will no doubt become more the rule rather than the exception. Users will someday be able to "call up" their map via the computer terminal--and receive a hard copy at the press of a button. But this will only happen when what we have now on paper is transferred to machine-readable language. It will be some time before all census maps are produced by computer-assisted means.

May I take this opportunity to thank the conference organizers of the Association of Canadian Map Libraries for giving me this time in your busy schedule of activities. I wish your association every success in the future.

STATISTIQUE CANADA
LA CARTOTHEQUE DU RECENSEMENT

D. Ross Bradley
Directeur, Division de la géographie
Statistique Canada
Ottawa, Ontario

On dit souvent que le recensement du Canada est la plus grande opération du gouvernement du Canada en temps de paix. En effet, quelque 40,000 personnes sont mobilisées pour une brève période, avec mission de rencontrer chaque ménage du Canada pour faire le recensement de la population et des logements du pays. Le Canada recense sa population tous les cinq ans, le dernier grand recensement décennal, le 12^{e}, a eu lieu le 3 juin 1981.

Pour que le recensement du Canada soit complet, les recenseurs doivent couvrir chaque kilomètre carré du territoire et frapper à la porte de plus de huit millions de ménages. Les cartes géographiques sont essentielles à la collecte des données du recensement; sans elles, le recensement ne pourrait s'effectuer de façon ordonnée, certaines régions seraient oubliées alors que d'autres seraient prises en compte plus d'une fois.

Il me fait plaisir de vous parler aujourd'hui des cartes que renferme la cartothèque du recensement de Statistique Canada.

Jusqu'en 1961, les cartes de recensement étaient fournies par les municipalités ou tirées des relevés topographiques du ministère de l'Energie, des Mines et des Ressources. Ces cartes et leurs documents d'accompagnement s'entassaient dans des classeurs, sur des tablettes, dans des contenants plus ou moins incongrus et les usagers ne pouvaient facilement les consulter. Ilétait en outre pratiquement impossible d'en faire des copies parce qu'elles n'avaient pas été dressées à l'origine sur des supports adéquats. Avec le temps, cependant, le nombre des copies et de demandes d'accès à ces cartes commença à croître. En 1964, on décida de tracer les cartes des secteurs de recensement des grands centres urbains sur du mylar, support résistant et reproductible. En 1965, nous faisons l'acquisition d'une machine diazo ainsi que d'un grand nombre de classeurs spéciaux de cartes.

Statistique Canada se trouvant ainsi en mesure de produire des copies des cartes de secteurs de recensement et de les entreposer adéquatement. Un secteur de recensement est une petite unité géographique permanente établie dans les grands centres urbains (50,000 habitants et plus) avex l'aide des spécialistes locaux qui s'intéressent à la recherche en sciences sociales et en urbanisme. Chaque secteur de recensement compte en moyenne 4,000 personnes et doit, dans la mesure du possible, présenter une forme compacte et la plus grande homogénéité possible du point de vue économique et social.

Petit à petit, la demande de cartes de grandes agglomérations autres que celles des secteurs de recensement s'est accru. Par la suite, Statistique Canada a obtenu d'Energie, Mines et Ressources une base pour toutes les cartes topographiques. Après l'adjonction d'une petite équipe de dessinateurs en 1966, il a été possible de dresser des diagrammes de secteurs de recensement pour toutes les municipalités divisées en secteurs de recensement et pour d'autres petits centres urbains. La cartothèque du recensement a été officiellement mise sur pied pour le recensement de 1971, ce qui nous a permis pour la première fois de produire et d'entreposer les cartes géographiques nécessaires aux opérations de collecte et de les reproduire à l'intention des usagers. Comme les demandes sont rapidement devenues plus complexes et que les usagers demandaient des agrandissements ou des réductions, nous avons fait l'acquisition en 1971 d'une copieuse Itek et, par la suite, de lecteurs et d'imprimantes de microfilms.

La cartothèque du recensement est construite autour de trois séries de cartes de base.

1. La série des cartes rurales: indique les secteurs de dénombrement sur les bases des cartes de la Série topographique nationale reçues d'Energie, Mines et Ressources (Figure 1).
2. La série des cartes de petits secteurs urbains: plans de villes fournis par les services d'urbanisme des municipalités (Figure 2).
3. La séries des cartes de secteurs de recensement pour les grands centres urbains de 50,000 habitants et plus: cartes dressées à partir des cartes obtenues des municipalités (Figure 3).

Nombre de cartes, par séries de base, utilisées lors des recensements du Canada de 1971, 1976, et 1981.

Année	Régions rurales	Petits secteurs urbains	Secteurs de recensement
1971	1200	1000	2100
1976	1200	1500	2600
1981	1200	2500	3300
Total	3600	5000	8000

Ces trois séries de base comportaient en tout 42,000 cartes distinctes de secteurs de dénombrement en 1971, 35,000 en 1976 et près de 41,000 en 1981.

La cartothèque du recensement renferme aussi d'autres cartes très en demande, notamment celles des circonscriptions électorales fédérales délimitées en secteurs de dénombrement (Figure 4). La popularité de ces cartes auprès des usagers s'explique par la disponibilité des données du recensement au niveau du secteur de dénombrement. Un secteur de dénombrement est l'unité géographique dénombrée par un recenseur. Au recensement de 1981, le Canada comptait quelque 41,000 secteurs de dénombrement d'une population moyenne de 600 habitants. Tracées sur mylar, ces cartes sont facilement reproductibles. Nous disposons également de cartes de référence pour les régions métropolitaines de recensement (Figure 5), les agglomérations de recensement (Figure 6), et leurs composantes et les secteurs de recensement (Figure 7). Bien qu'elles soient publiées dans les bulletins de recensement, elles sont aussi disponibles à l'unité, selon les besoins particuliers des usagers. Toutes les cartes utilisées pour les recensements antérieurs à 1971 ont été remises aux Archives publiques du Canada comme documents historiques.

La cartothèque de Statistique Canada et son atelier bourdonnent d'activité. Le tableau suivant indique la charge de travail abattue entre deux recensements, 1978/79 à 1981/82.

	Copies sur papier blanc	Copies Itek
1978/79	49,830	12,300
1979/80	37,280	16,937
1980/81	100,673	26,868
1981/82	35,831	27,407

Les usagers de la cartothèque sont aussi variés et nombreux que les activités d'un recensement. Voici un bref aperçu du genre d'usagers qui font appel à nos services régulièrement:

- services municipaux de planification et de génie;
- universités;
- organismes de recherche en marketing;
- maisons de sondage;
- directeur général des élections;
- services de police;
- medias;
- conseils d'administration des hôpitaux.

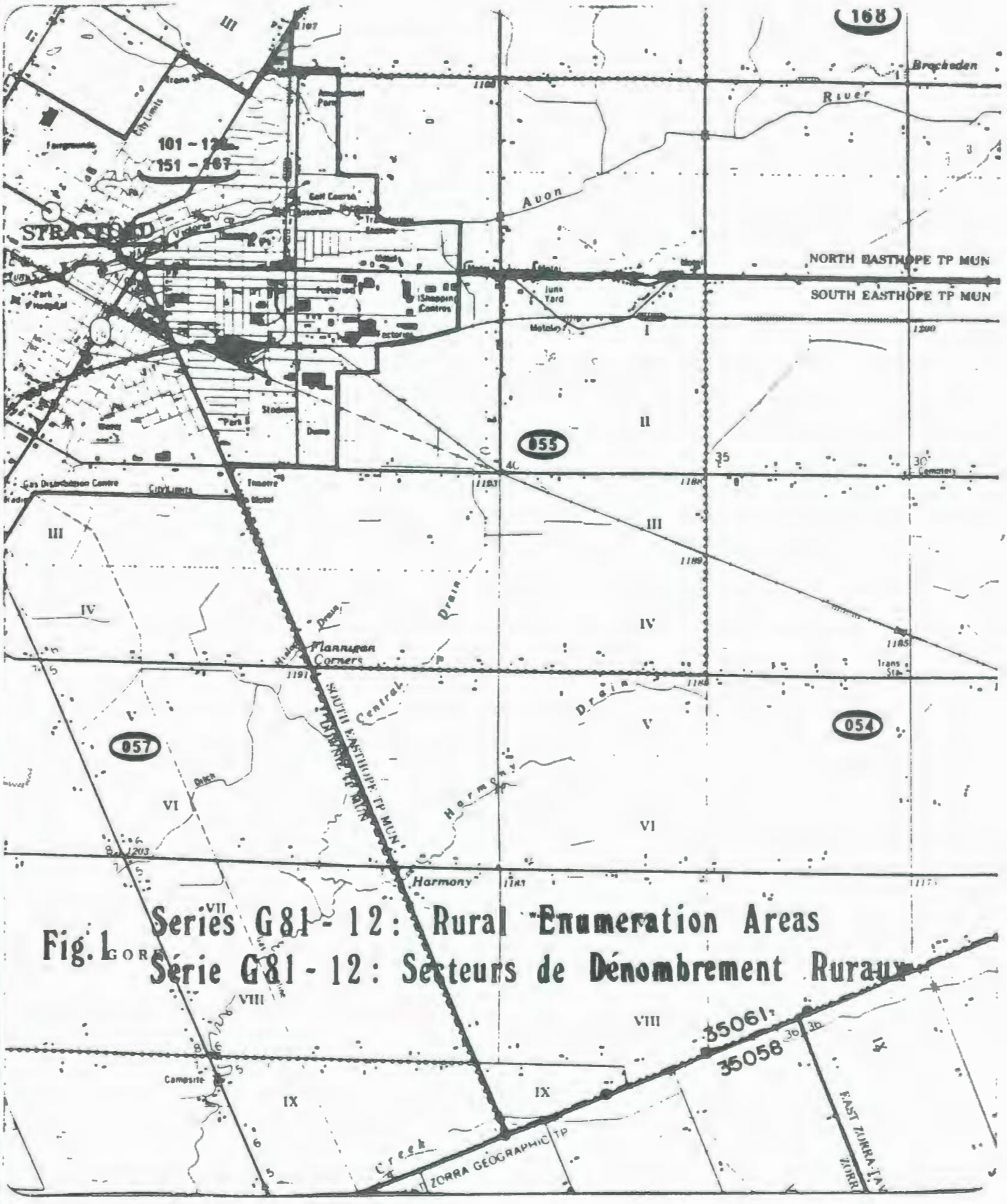
Pour obtenir l'une ou l'autre des cartes que je viens de décrire, il suffit de communiquer avec l'Assistance-utilisateurs, soit à l'Administration centrale de Statistique Canada, à Ottawa, ou dans l'un des huit bureaux régionaux répartis à travers le Canada. La liste figure dans la publication "Produits et services du recensement du Canada, 1981" que vous

pouvez consulter dans les présentoirs de Statistique Canada.

Que réserve l'avenir à la cartothèque de Statistique Canada? Nous savons que l'informatisation influera sensiblement sur le prochain recensement de 1986. Déjà, les cartes de certains secteurs de recensement ont été dressées à l'aide de l'ordinateur (Figure 8). Actuellement, nous prévoyons qu'environ 1,000 cartes de ce genre seront produites pour le recensement de 1986. La cartographie informatisée est appelée s'étendre. Les usagers pourront, dans quelques années, demander une carte à partir d'un terminal et en obtenir une copie en clair sur simple pression d'un bouton. Cette révolution ne surviendra cependant que lorsque nos cartes actuelles auront été traduites en langage machine, et ce n'est pas pour demain.

Je profite de l'occasion pour remercier les organisateurs de la conférence de l'Association des cartothèques canadiennes de m'avoir permis de prendre part à ce colloque. Je souhaite tout le succès possible à l'association.

* * *



Series G81 - 12: Rural Enumeration Areas

Fig. 1 Série G81 - 12: Secteurs de Dénombrement Ruraux

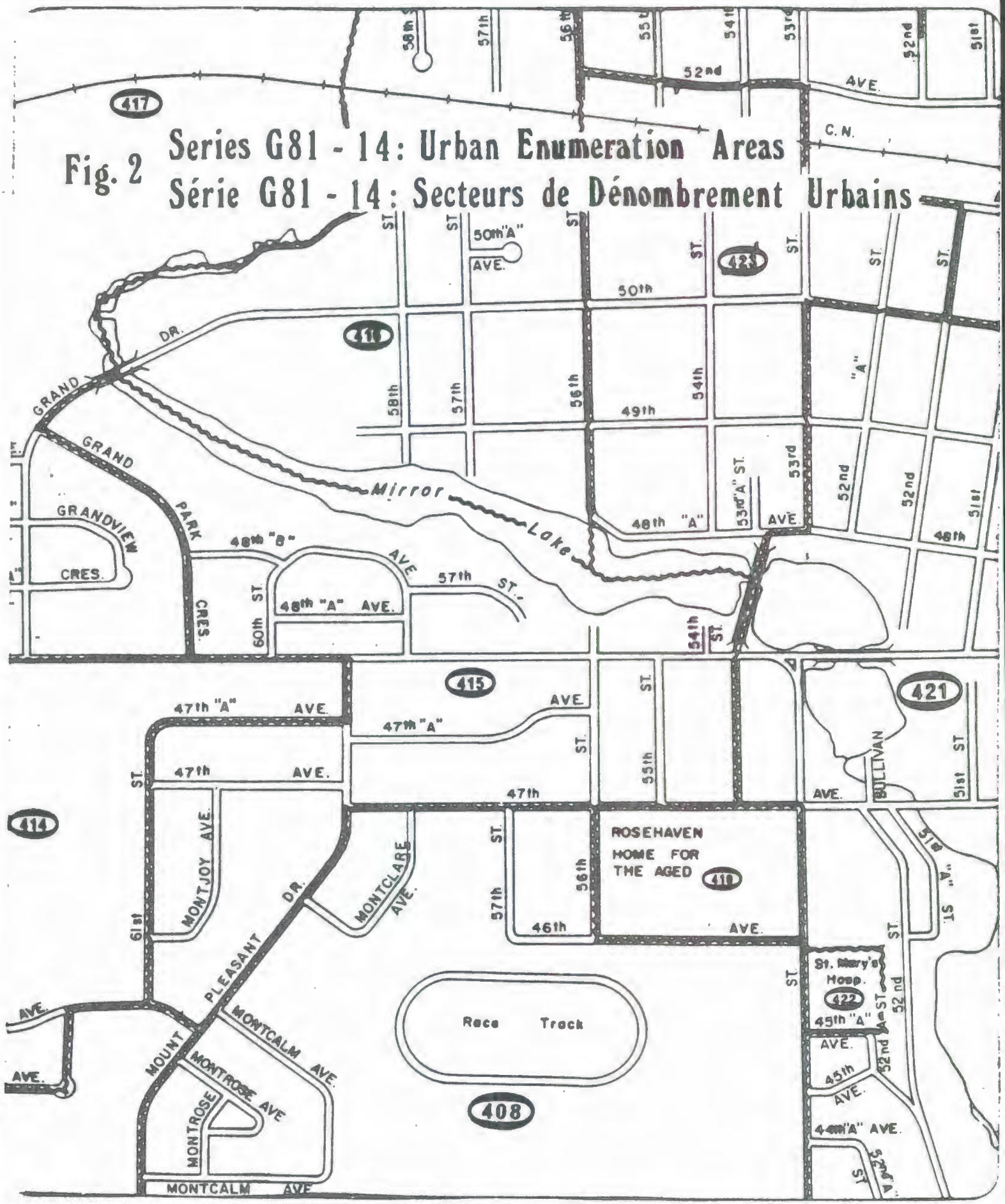


Fig. 2 Series G81 - 14: Urban Enumeration Areas
Série G81 - 14: Secteurs de Dénombrement Urbains

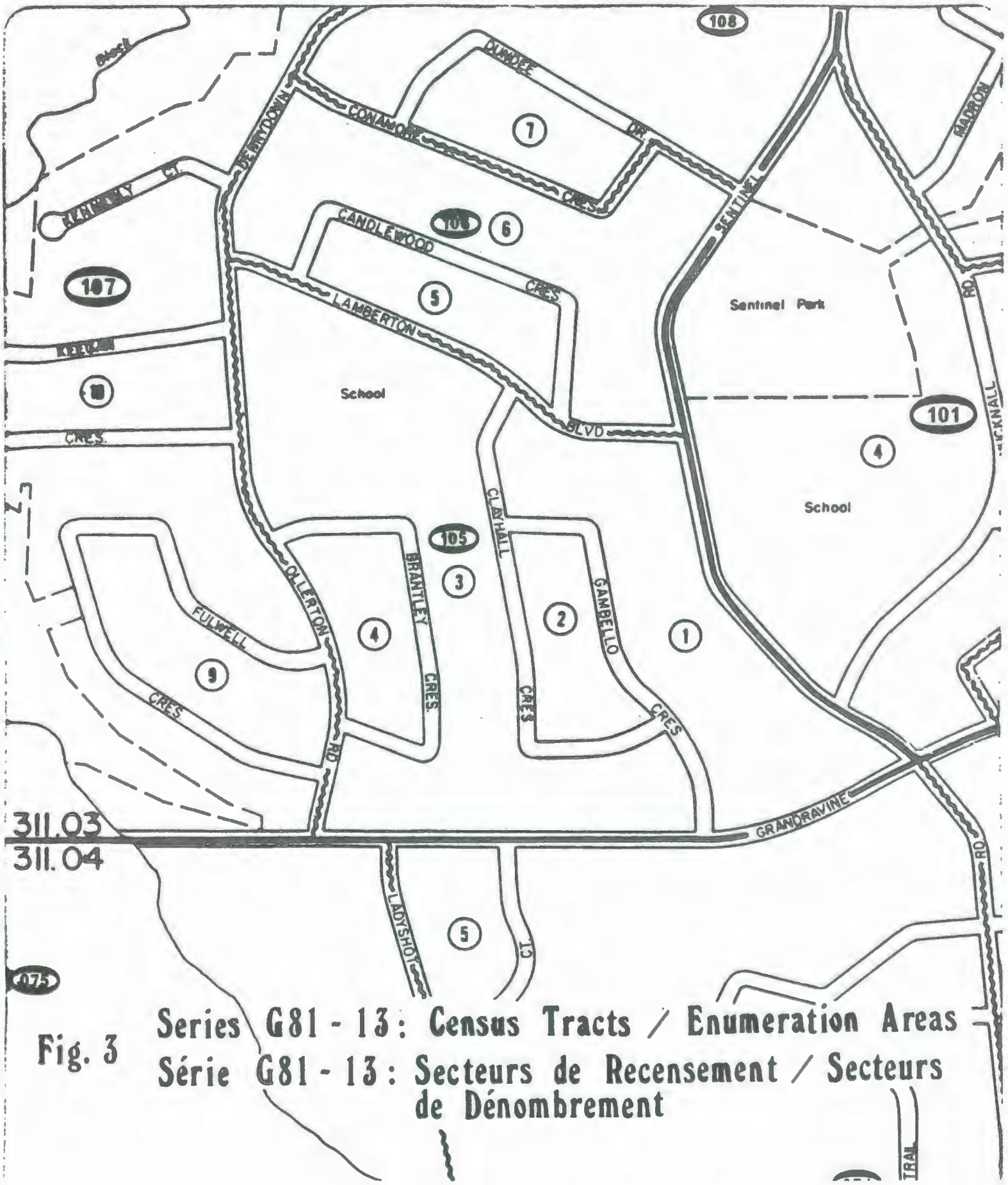


Fig. 3 **Series G81 - 13: Census Tracts / Enumeration Areas**
Série G81 - 13: Secteurs de Recensement / Secteurs de Dénombrement

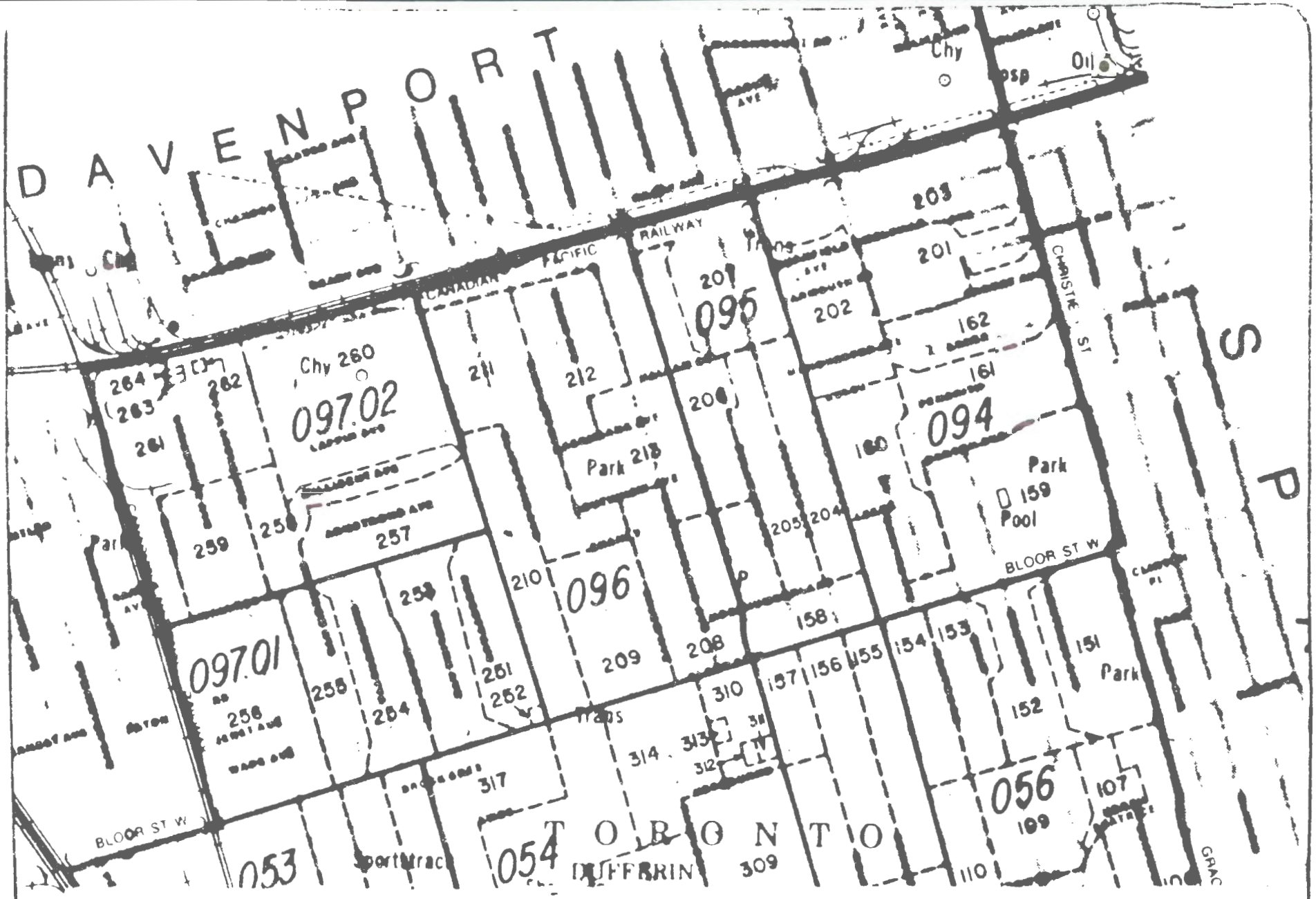


Fig. 4 Series G81 - 18: Federal Electoral Districts / Enumeration Areas
Série G81 - 18: Circonscriptions Électorales Fédérales / Secteurs de Dénombrement

Fig. 5 Census Metropolitan Area. (CMA)
Région Métropolitaine de Recensement. (RMR)

Fig. 6 Census Agglomerations. (CAs) Agglomérations de Recensement. (AR)

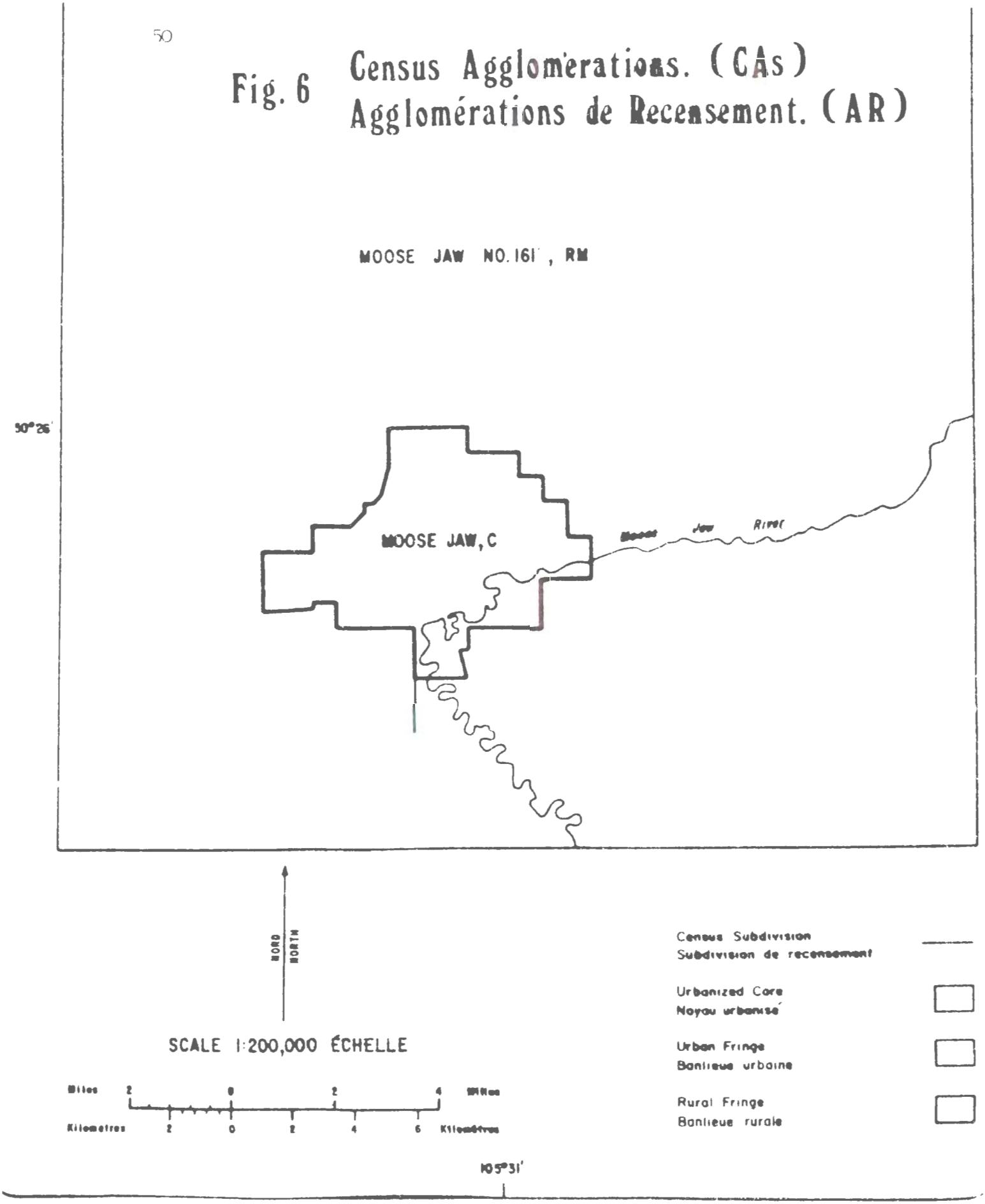
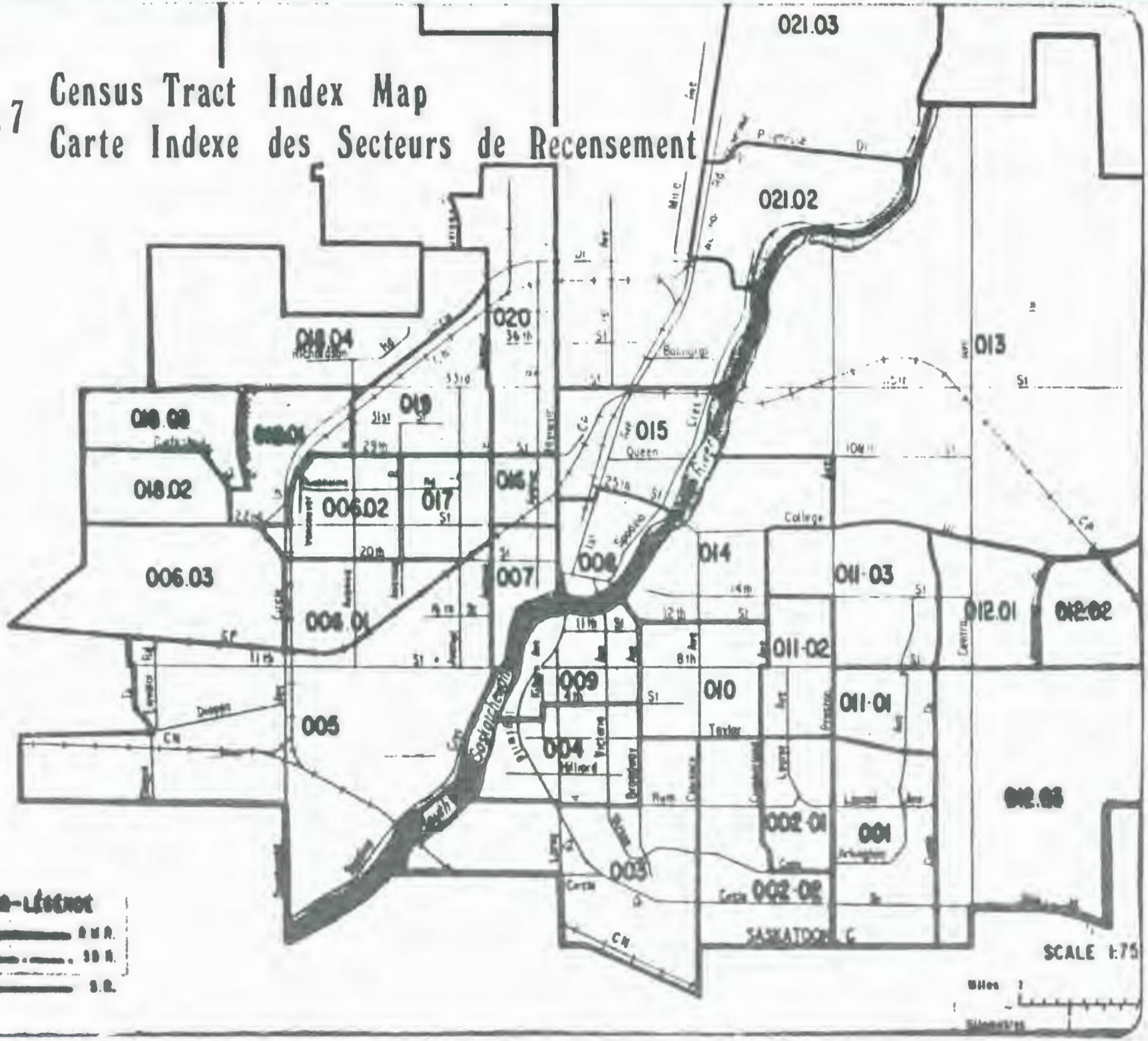


Fig. 7 Census Tract Index Map
Carte Indexe des Secteurs de Recensement



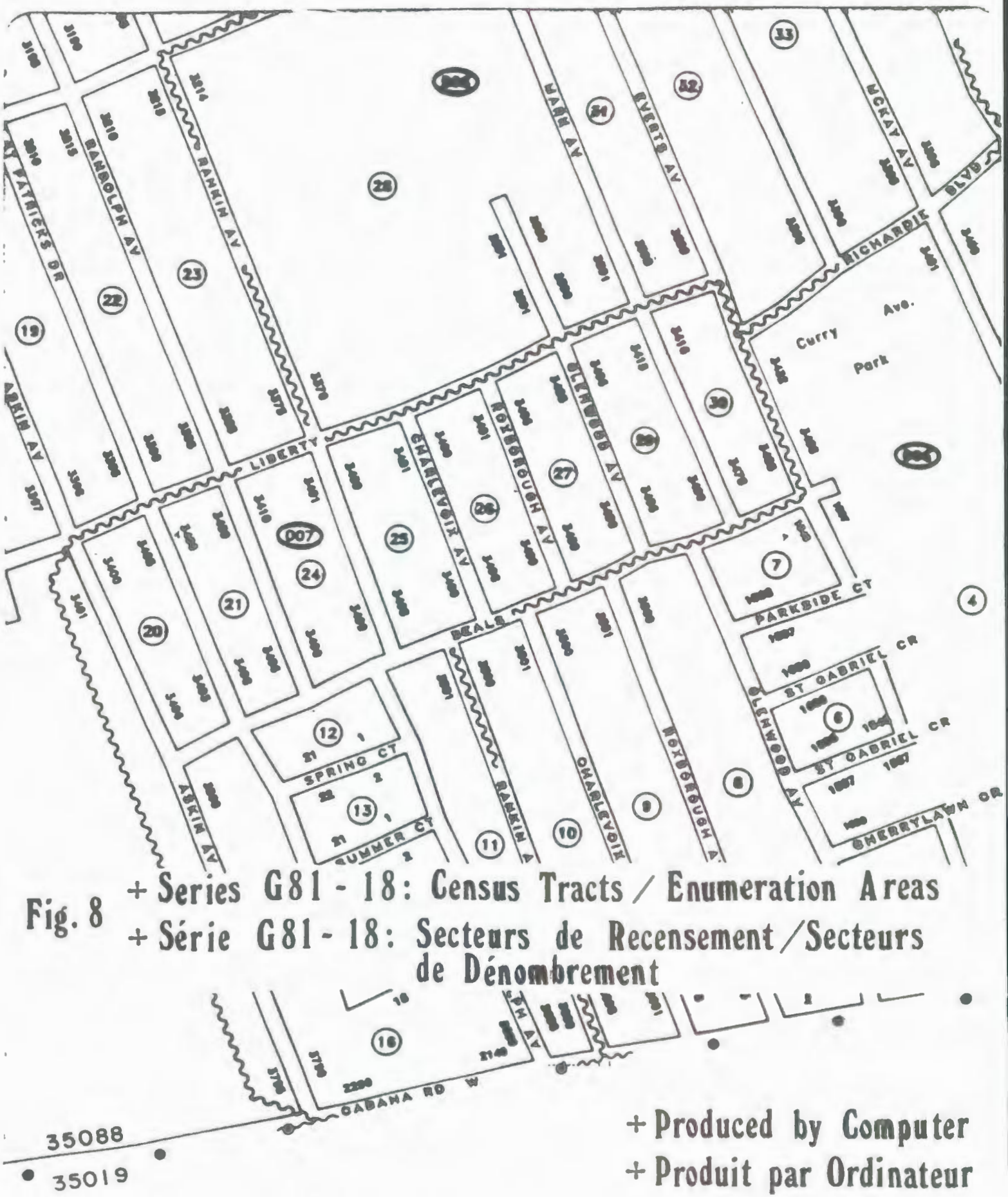


Fig. 8

+ Series G81 - 18: Census Tracts / Enumeration Areas
+ Série G81 - 18: Secteurs de Recensement / Secteurs de Dénombrement

+ Produced by Computer
+ Produit par Ordinateur

RECENT ACQUISITIONS

compiled by Karen Young
University of Ottawa Map Library
Morisset Library
Ottawa, Ontario

Contributors: GSC - Geological Survey of Canada Map Library
OOU - University of Ottawa Map Library
UBC - University of British Columbia Map Library
UT - University of Toronto Map Library

WORLD - Maps

OOU Seasonal reconstructions of the earth's surface at the last glacial maximum / CLIMAP Project members. - Palisades, N.Y. : Lamont-Doherty Geological Observatory of Columbia University, 1981.
(Map & Chart Series MC-36)
9 sheets, 1 microfiche and text.

UBC Tactical pilotage charts. - Scale 1:500,000. - London : Ministry of
OOU Defense ; Riverdale, Maryland : U.S. Dept. of Commerce, NOAA, 1973-.

AFRICA

OOU Afrika-Kartenwerk 1:1,000,000 / U. Freitag, K. Kayser, W. Manshard, H. Mensching, L. Schatzl, J.H. Schultze au nom de l'Association allemande de la recherche scientifique. - Echelle 1:1,000,000. - Berlin : Gebuder Bontraeger, 1981.
N. 9: Géographie de l'habitat: Structure régionale et typologique du système de l'habitat.

EGYPT

UBC Egypt. - Scale 1:500,000. - Jerusalem : Carta, 1980.
Insets: Nile Valley (2), scale 1:,1,000,000; Sinai and the Negev, scale 1:2,000,000; El Qahira (Cairo), scale 1:30,000.
Cover title: Carta's Map of Egypt.
Accompanied by an 83-page text.

MAURITANIA

UBC Mauritania, carte au 1:2,500,000. - Echelle 1:2,500,000. - Paris : Institut Géographique National, 1980.

MOZAMBIQUE

GSC Carta geologica / Mozambique, Direccao dos servicos de geologia e minas. - 2nd ed. - Scale 1:2,000,000. - Maputo, 1976.
Accompanied by explanatory notes.

ZIMBABWE

UBC Zimbabwe natural regions and farming areas. - Scale 1:1,000,000. - Salisbury : Surveyor-General, 1980.
Shows 5 types of related farming systems.

ASIA - Maps

BAHRAIN

OOU Bahrain: set of six maps: geology, geomorphology and pedology / J. C. Doornkamp et al., editors. - Scale 1:50,000. - Al Manamah : State of Bahrain, Ministry of Works, Power and Water, 1980.

CHINA

UBC [China map of mean temperatures in January and July]. - Scale 1:6,000,000. - [Beijing : Sun Hwa Book Shop], 1976.
1 map in 2 sections.
In Chinese only.
Cover title: Zhongguo yi, giyul pingjun quiwoen.

INDONESIA

UBC Peta geologi Java dan Madura = Geological map of Java and Madura. - 2nd ed. - Scale 1:500,000. - Bandung : Geological Survey of Indonesia, 1977.
1 map in 3 sections.

IRAQ

UBC Iraq synopsis 1980. - Scale 1:2,000,000. - Geneva : Petroconsultants SA, 1981.
Inset: Geologic sketch map, scale ca 1:900,000].

ISRAEL

UBC Israel touring map. - Scale 1:250,000. - Jerusalem : Survey of Israel, 1980.
1 map in 2 sections.
Legend in English.
Map shows cease-fire lines in 1967 and disengagement of forces lines in 1974.
Accompanied by "Lists of settlements, localities and antiquity sites," 14 pages.

MALAYSIA

UBC Peta taburan galian Sabah = Mineral distribution map of Sabah, Malaysia. - Scale 1:500,000. - Kuala Lumpur : Geological Survey of Malaysia, 1976.
Insets: Outline map of South China Sea Basin, and areas surrounding it, scale 1:20,000,000.

NEPAL

UBC Nepal landcover implications derived from Landsat imagery. - Scale 1:500,000. - Kathmandu, Nepal : Nepal Remote Sensing Centre, 1980.
1 map in 2 sections.

EUROPE - Maps

OOU Carte hydrogéologique internationale de l'Europe / Unesco. - Echelle 1:1,500,000. - Hanover : Unesco/B.G.R., 1976.
B4: London, 1976.
C3: Oslo, 1979.

BELGIUM

UBC Brussels. - Scale [ca 1:9,000]. - Brussels : Belgian National Tourist Office, 19- .
In Flemish, French, German and English.
Verso: public transport, roads of approach 1:92,000.

CRETE

UT Crete / produced and published by Clyde Surveys Limited. - Scale [ca 1:275,000]. - Maidenhead, Eng. : Clyde Surveys Limited, [1979?].
1 map : col., 32 x 94 cm on sheet 61 x 96 cm, folded to 23 x 13 cm plus cover. - (Leisure map).
Cover title: A leisure map of Crete with plan of: Iraklion, Chania, Rethymnon, Aghios Nikoloas, Knossos, Phaestos and Malia.
6812 .C7 275 [1979?].

FINLAND

OOU Finland Landownership / Finland National Board of Survey. - Scale 1:1,000,000. - Helsinki : National Board of Survey, 1981.

OOU Finland Language Territories / Finland National Board of Survey. - Scale 1:2,000,000. - Helsinki : National Board of Survey, 1981.

FRANCE

UBC
OOU France richesses artistiques = France artistic treasures / Kunst and Kultus. - Scale 1:1,000,000. - Paris : Institut Géographique National, 1980.
Insets: Paris 1:400,000; Corsica.
In French, English and German.

GERMANY (DEMOCRATIC REPUBLIC)

UBC General-karte von den sammtlichen Koniglich Preussischen Staaten welche zugleich als postkarte dient, entworfen von D.F. Sotzmann, Berlin, 1802. - Scale 1:1,000,000. - Berlin : Historischen Kommission zu Berlin, 1981.
1 facsim. map.
Accompanied by Geographisch-Statistisches Repertoriam von Christian Gaspari, Lfg. 1.

GREAT BRITAIN

UBC Britain from 900 kilometers, a computer mosaic of 43 pictures from the remote sensing satellite Landsat. - No scale given. - London : British Astronomical Association, [1976].
Accompanied by a one page explanatory sheet.
Made by National Remote Sensing Centre, Royal Aircraft Establishment, Farnborough.
Insets: Shetland Islands.

UBC [London subway transportation]. - No scale given. - London : London Transport, [194?].
Two sites for 1951 exhibition indicated.
Cover title: London Town, Bird's Eye View ...
Verso: Tourist information.

GREENLAND

UBC Geologisk kort over Gronland. - Scale 1:100,000. - Kobenhavn : Geodetisk Institut [for] Gronlands Geologiske Undersogelse, 1967-.

IRELAND

UBC Genealogical and historical map of Ireland shewing the Five Kingdoms of Pentarchy : Meath, Ulster, Connaught, Leinster and Munster. - No scale given. - Dublin : Heraldic Artists Ltd., 1968.
(Genealogy Bookshop, 1979).

PORTUGAL

GSC Servicos geologicos de Portugal. - Scale 1:50,000. - Lisbon, 19-.

SPAIN

UBC Mapa Oficial de Espana Conjuntos provinciales. - Scale 1:200,000. - Madrid : Instituto Geografico Nacional, 1963-.

NORTH AMERICA - Maps

CANADA

UT 1:50,000 five year program - new mapping, 1:50,000 plan quinquennal-nouvelle cartes. - Scale [ca 1:6,336,000]. - [Ottawa] : Department of Energy, Mines and Resources, Surveys and Mapping Branch, 1981.
1 map : col. ; 85 x 97 cm.
"Internal working document"
In English/French.
5 classes of projected mapping, map no. MCR 114.
3401 .C11 6336 1981-1986b

UBC Shipping safety control zones. - Scale 1:6,336,000. - Ottawa : Ministry of Transport, Northern Operation, [1980].

Alberta

UBC Ecological reserves and natural areas (proposed and established). - Scale 1:1,000,000. - Edmonton : Alberta Resources Evaluation and Planning Division, 1982.
Accompanied by a 27-page map supplement, January 1982.

British Columbia

UBC British Columbia, land status edition. - Scale 1:250,000. - Victoria : Dept. of Lands & Forests, Surveys & Mapping Branch, 1950-.

UBC British Columbia Regional Geochemical Survey. - Scale 1:250,000. - Victoria : Ministry of Energy, Mines and Petroleum Resources, 1978-. (BC-RGS; 1-).

UBC Fraser River [Survey Prints]. - Scale 1:12,500. - Ottawa : Dept. of Public Works, 1981.
5 sheets.

UBC Graystokes resource folio. - Scale 1:50,000. - Victoria : Ministry of Environment, [1981?].
15 sheets.

UBC Greater Kamloops region. - Scale 1:100,000. - Vancouver : Outdoor Recreation Council of British Columbia, 1982.
(Outdoor Recreation Maps of British Columbia ; no. 4).
Base map by British Columbia Ministry of Environment, Surveys and Mapping Branch.
Verso: Recreation information.

UBC Vancouver bicycle map. - Scale 1:30,000. - Vancouver : Vancouver Bicycle Club, 1982.
Verso: Map showing western portion of the Fraser Valley. - Scale [ca 1:240,000].

Manitoba

OOU Mineral Map of Manitoba 1:1,000,000 / P. Buonpensiere and T. Franceschet. - Scale 1:1,000,000. - Winnipeg : Department of Mines, Resources and Environmental Management, 1980.

Newfoundland

GSC Regional geology map series / Newfoundland Mineral Development Division. - Scales vary. - St. John's, 19-.

UBC St. John's zoning by-law, 1981. - Scale [ca 1:59,000]. - St. John's : St. John's City Planning Office, 1982.

Nova Scotia

UBC Folio of geological maps of Nova Scotia. - Scale 1:2,000,000. - Halifax, Nova Scotia : Dept. of Mines and Energy, 1979.
6 maps.

GSC Pleistocene geology and till geochemistry of central Nova Scotia / by R.R. Stea and J.H. Fowler. - Halifax : Nova Scotia Dept. of Mines and Energy, 1980.
(Map 81-1; sheet No. 4).

UBC Tectonic map of the Province of Nova Scotia. - Scale 1:500,000. - Halifax : Dept. of Mines and Energy, 1982.
Inset: Lineament of Nova Scotia. - Scale 1:1,000,000.

Ontario

UBC Canal Rideau = Rideau Canal. - Scale [ca 1:250,000]. - Ottawa : Parks Canada, 1981.
Verso: Historical and pictorial information in English and French.

OOU Ontario airport facilities 1981-82, 1:1,600,000 (north side), 1:800,000 (south side) / Ontario Ministry of Transportation and Communication. - Toronto : Ministry of Transportation and Communication, 1982.

OOU Ontario Basic Mapping Programme / Ontario. Ministry of Natural Resources. - Scale 1:10,000. - Toronto : Ontario. Ministry of Natural Resources, 1982.

UT Canoe routes of Ontario. - Scale [ca 1:2,125,000]. - Toronto : McClelland and Stewart Limited, ca 1981.
1 map : col. ; 78 x 74 cm on sheet 108 x 77 cm.
Accompanied by: Canoe routes of Ontario: definitive guide to more than 100 canoe routes throughout the province. - 110 p.
Canoe routes-areas named; main hwys, northern railways.
3501 .E63 2125 1981.

UBC City of Ottawa; zoning as approved by the Ontario Municipal Board, February 1981. - Scale 1:10,000. - [Ottawa] : Technical Services Division, 1981.
1 map in 2 sections.

OOU FARINEO: Forestry agricultural resource inventory in Eastern Ontario 1:250,000 / Ontario Ministry of Agriculture and Food, Foodland Preservation Branch. - Toronto : Ontario Ministry of Agriculture and Food, 1980.
55 sheets.

GSC Susceptibility of ground water to contamination / Ontario. Water Resources Branch. - Scale 1:50,000. - [Toronto], n.d.
Sheet: Windsor-Essex.

UBC Toronto Harbour and approaches. - Scale 1:15,000. - Ottawa : Canadian Hydrographic Service, 1982.
(Chart 2085).
Inset: Toronto Islands 1:10,000.

Prairies

UT Bishop's north-west war map, [Canadian prairies]. - Scale [ca 1:5,725,000]. - [Ottawa] : Association of Canadian Map Libraries in co-operation with the Map Library, Faculty of Arts, University of Regina, 1980.
1 map: facsim., 22 x 32 cm on sheet 56 x 43 cm - (Facsimile/ Association of Canadian Map Libraries ; no. 52 = Fac-similé/ Association des cartothèques canadiennes ; no. 52).
3535 [1885].

Quebec

UT Agglomérations ... fonctions urbaines [Québec]. - Echelle 1:20,000. - [Québec] : Gouvernement du Québec, Ministère des affaires municipales, recherche et politiques, [1980].
Maps: Ozalid print ; 102 x 160 cm or smaller.
7 major classes and 14 subject classes of land use for built up areas (over 3 time periods), 2 classes of roads, 3 classes of boundaries.

OOU Carte de tourisme et de plein air / Gouvernement du Québec. Ministère de l'énergie et des ressources & Ministère de l'industrie, du commerce et du tourisme & Association touristique du Coeur du Québec. - Québec : Ministère de l'énergie et des ressources, 1981.
Feuille: Mauricie-Bois-Francs-Centre-du-Québec.

UBC [Cartes des régions avoisinantes des localités Cries et Inuit]. - Scale 1:250,000. - Ste. Foy, Québec : Ministère de l'énergie et des ressources, 1981.
Location map on each sheet.
Some sheet names in Inuktitut.

OOU La carte électorale du Québec. Rapport 1980 / Commission de la représentation, Gouvernement du Québec. - Echelle 1:500,000. - Québec : Ministère de l'énergie et des ressources, 1981.

OOU Carte géologique du Québec / Ministère des richesses naturelles. - Edition finale. - Echelle 1:1,500,000. - Québec : Ministère de l'énergie et des ressources, 1981-82.

OOU "La problématique géopolitique du Québec" (Rapport). L'Espace québécois (carte). Variations horizontales des dimensions internes de l'intégrité territoriale (carte) / Christian Marissonneau. - Québec : Les Presses de l'Université Laval, 1980.
Dans Cahiers de géographie du Québec, Vol. 24, No. 61, 4/80.
Extrait du numéro spécial.

UBC View of Quebec, dedicated by permission to Lt. General Lord Seaton ... from a drawing by Captain B. Beaufoy ... - Scale not given. - Ithaca, N.Y. : Historic Urban Plans, [1981].
1 map facsim.

Northwest Territories

UT Yellowknife, military city map = Carte militaire de la ville / produced by the Mapping and Charting Establishment, Department of National Defense. - Ed. 2. - Scale 1:25,000 ; Transverse Mercator proj. (W114°30'--W114°17'/N62°32'--N62°24'). - [Ottawa] : MCE, 1981.
1 map : col. ; 60 x 45 cm, on sheet 102 x 76 cm. - (Military city map : series A902 1:25,000; MCE 327 = Carte militarie de la ville).

UNITED STATES

OOU Aeromagnetic map of East-Central United States 1:1,000,000 / T.G. Hildenbrand, R.P. Kucks, R.W. Johnson, Jr. - Reston, Va. : United States Geological Survey, 1981.

OOU Appalachian Trail 1:2,000,000 / U.S. National Park Service. - Scale 1:2,000,000. - Harper's Ferry, Va. : Appalachian Trail Project Office, 1981.

UBC Map of Pacific Coast ecological inventory / U.S. Fish and Wildlife. - Scale 1:250,000. - Reston, Va. : U.S. Geological Survey, 1981.

Alaska

OOU Vegetation mapping of the National Petroleum Reserve in Alaska using Landsat digital data / L.A. Morrissey & R.A. Ennis. - Reston, Va : U.S. Geological Survey, 1981.
(Open File 81-315).

Idaho

UBC Geothermal resources of Idaho. - Scale 1:500,000. - Boise, Idaho : Dept. of Water Resources, 1980.
Geothermal investigations in Idaho, Part 9, Potential for direct heat application of geothermal resources. Idaho : Dept. of Water Resources, Water Information Bulletin ; No. 30 Plate 1.

Maryland

UBC Vegetation map of Maryland: the existing natural forests. - Scale 1:250,000. - Baltimore : John Hopkins University, 1976.
Lower part of sheet has cross-sections showing vegetation sub-strate relationships.

Missouri

GSC Mineral resources and industry map of Missouri / Eva B. Kisvarsanyi. - Scale 1:500,000. - [Rolla] : Missouri Geological Survey and Water Resources, 1965.

Nebraska

UBC Geothermal resources of Nebraska / prepared by the National Geophysical and Solar-Terrestrial Data Center, NOAA for the U.S. Dept. of Energy, Division of Geothermal Energy. - Scale 1:500,000. - Lincoln : University of Nebraska, Conservation and Survey Division, 1982.

South Carolina

UT General landcover of South Carolina 1980 / prepared by the University of South Carolina Computer Graphics in co-operation with National Aeronautics and Space Administration, Earth Resources Laboratory and National Space Technology Laboratory ; additional support provided by the Division of Research and Statistics Service, Office of Geographic Statistics. - Scale 1:500,000 ; Transverse Mercator proj. (W83°15'--W178°35'/N35°10'--N32°). - Columbia, S.C. : University of South Carolina Computer Graphics, 1980.
1 remote sensing image : col. ; 76 x 93 cm.
Inset: Index to Landsat imagery coverage "Imagery intercepted from discrete spectral bands recorded by Landsat I, II or III."
3911 .G43 500 1973-79.

Washington

OOU Physiographic diagrams of the May 18th, 1980 landslide eruption of Mount St. Helens, Washington /Tau Rho Alpha & James G. Moore. - Reston, Va. : U.S. Geological Survey, 1981.

UBC Reconnaissance geologic map of Southern Washington Cascade Range, latitude 45°30'--7°15'N, longitude 120°45'--122°22.5'W. - Scale 1:125,000. - Portland, Oregon : Portland State University, Dept. of Earth Sciences, 1980.
1 map in 2 sheets.

CENTRAL AMERICA - Maps

COSTA RICA

UBC Ciudad de Cartago. - Edicion 2. - Scale 1:10,000. - San José : Instituto Geografico Nacional, 1980.
(E962).

UBC Mapa fisico-politico. - Scale 1:500,000. - [San José], Instituto Geografico de Costa Rica, 1979.

GUATEMALA

OOU Guatemala: Mapa de Capacidad productiva de la Tierra 1:500,000 / Guatemala Consejo Nacional de Planificacion Economic, Area de Planificacion Intersegoplan. - Echelle 1:500,000. - Guatemala : Instituto Geografico Nacional, n.d.
4 maps.

PANAMA

UBC Panama, mapa geologico. - Scale 1:250,000. - Panama : Instituto Geografico Nacional "Tommy Guardia," 1976.
76 sheets.

JAMAICA

UBC Jamaica-geology. - Preliminary ed. - Scale 1:250,000. - Kingston : Survey Dept., 1977.

SOUTH AMERICA - Maps

ARGENTINA

OOU Republica Argentina 1:4,000,000: Mapa petrolero / Gerencia General de exploracion. - Sag Harbour, N.Y. : Geologic Map Service (Telberg Book Corp.), 1981.

COLOMBIA

UBC Mapa fotogeologico de los departamentos de Caldas, Risanalda y Quindio. - Scale 1:250,000. - [Bogota] : Instituto Nacional de Investigacionos Geologico-Mineras, 1972.

OCEANIA - Maps

AUSTRALIA

GSC Australis 1:100,000 geological map series. - Scale 1:100,000. - Canberra : Australia, Bureau of Mineral Resources, Geology and Geophysics, 19 -.

UBC Geological atlas of Tasmania. - Scale 1:50,000. - Hobart : Dept. of Mines.

GSC [South Australia] : total magnetic intensity map. - Scale 1:1,000,000. - Adelaide : Geological Survey of South Australia, 1976.

UBC Victoria geological map. - Scale 1:1,000,000. - Melbourne : Geological Survey of Victoria, 1977.
Inset: Sedimentary basins.

UBC Vegetation of Western Australia. - Scale 1:3,000,000. - Como, Western Australia : Conservator of Forests, Dept. of Lands and Survey, 1981.
Accompanied by explanatory notes/by J.S. Beard, 1981, 32 pages.

NEW ZEALAND

UBC Christchurch and environs ; historic buildings, landmarks and sites. - Scale [ca 1:20,000]. - Wellington, New Zealand : New Zealand Historic Places Trust, and Canterbury Regional Committee, 1981.
Drawings of historic buildings.
On verso: Detailed history of each area.

OCEANS - Maps

ATLANTIC OCEAN

UBC [Bathymetric atlas of the Atlantic, Caribbean and Gulf of Mexico, composite sheets]. - No scale given. - [Woods Hole, Mass. : Woods Hole Oceanographic Institute, 1981].
1 map in 2 sections.

CROZET ISLANDS

OOU Terres australes et antarctiques francaises. - Iles Crozet. Carte de reconnaissance au 1:200,000. - Echelle 1:200,000. - Paris : Institut Géographique National, 1974.

KERGUELEN

OOU Les glaciers de l'Ile Kerguelen / Albert Bauer. - Paris : Institut Géographique National, [1962].
(Territoires des terres australes et antarctiques francaises).
5 cartes.

PACIFIC OCEAN

OOU Plate tectonic map of the Circum-Pacific Regions 1:10,000,000 / J. Corvalan, Circum-Pacific Council for Energy and Mineral Resources. - Scale 1:10,000,000. - Tulsa : American Association of Petroleum Geologists, 1981.
2 maps.

WORLD - Atlases

UT Atlas of military strategy : 1618-1878 / David G. Chandler ; Cartography by Hazel R. Watson and Richard A. Watson. - London : Arms and Armour, 1980.

UBC Atlas of seismic activity 1909 to 1968. (Seismological Bulletin ; No. 5). - London : HMSO, 1976.

OOU Nuclear War Atlas / The Society for Human Exploration. - Victoriaville, Quebec : The Society for Human Exploration, 1982.

OOU The Penguin atlas of recent history (Europe since 1815) / Colin McEvedy. - New York : Penguin Books, 1982.

UT Phanerozoic paleocontinental world maps / A.G. Smith, A.M. Hurley, J.C. Briden. - Cambridge : Cambridge University Press, 1981.

UT Rigby's atlas of earth resources / foreword by Robert McNamara. - 1st Australian ed. - Adelaide : Rigby, 1979.

ASIA - Atlases

OOU An historical atlas of Islam / William Brice, ed. - Leiden : E.J. Brill, 1981.

INDIA

UT Agroclimatic atlas of India. - Pune, India : Meteorological Dept., Division of Agricultural Meteorology, 1978.

AFRICA - Atlases

UBC Cartographie des pays du Sahel. - Paris : Ministère de la co-opération, 1976.

AMERICAS - Atlases

OOU Atlas of the Northwest Coast of America / M.D. Teben'kov. - Kingston : Limestone Press, 1981.

CANADA

OOU The Climate of the Canadian Arctic Islands and adjacent waters = Le climat des iles arctiques et des eaux adjacentes du Canada / J.B. Maxwell. - Environment Canada, Atmospheric Environment Service, 1980.
Vol. I: Climatological Studies = Etudes climatologiques.

OOU Sea-ice atlas of Arctic Canada 1975-1978 / D.G. Lindsay. - Ottawa : Energy, Mines and Resources, 1981.

Saskatchewan

UBC Physical environment of Saskatoon. - Ottawa : Saskatchewan Research Council in cooperation with the National Research Council, 1970.

UNITED STATES

Massachusetts

UBC Cape Cod environmental atlas. - Boston : Dept. of Geology, Boston University, 1979.

Maine

UBC Maine atlas and gazetteer. - 7th ed. - Freeport, Me. : The DeLorme Publishing Co., 1982.

New Mexico

UT New Mexico in maps / ed. by Jerry L. Williams and Paul E. McAllister. - Albuquerque : University of New Mexico Press, 1981.

SOUTH AMERICA - Atlases

PARAGUAY

UBC Atlas Hermes, compedio geografic del Paraguay / Federico Ematequl. - Asuncion : Hermes Editiorial Pedagogica, 1977.

EUROPE - Atlases

UT Road atlas of Europe / R.A.C. - [Chicago?] : Rand McNally, 1980.

BULGARIA

UT Bulgarski voenen atlas / Kompleksen institut prouchvane i proektirane po kartograficà ; [red. koleg Khristo Dobrev ... et al.]. - Sofiià : Voen izd, 1979.

FRANCE

OOU L'Inventaire de la France: atlas anthropologique et politique / Hervé Le Bras et Emmanuel Todd. - Paris : Librairie générale française, 1981.

GREAT BRITAIN

OOU The British Voter: an atlas and survey since 1885 / Michael Kinnear. - New York : St. Martin's Press, 1981.

PORTUGAL

UT Atlas socio-economico / Gabinete de Planeamento, Ministério das Corporaçoes e Seguranca Social. - Lisboa : Centro de Informaçao e Documentaçao, [1971?].

OCEANIA - Atlases

AUSTRALIA

OOU Atlas of Australian resources - third series / Division of National Mapping. - Canberra : Division of National Mapping, 1980.
Vol. 1: Soils and Land Use
Vol. 2: Population

OOU BMR earth science atlas of Australia / Bureau of Mineral Resources, Geology and Geophysics. - Canberra : Bureau of Mineral Resources, 1979.

OCEANS - Atlases

PACIFIC AREA

UBC Language atlas of the Pacific area. - Canberra, Australia : The
OOU Australian Academy of the Humanities, Japan Academy, c1981.

REFERENCE BOOKS

GENERAL BOOKS

UBC Cartography and its applications for geographical and ecological problems / editor B. Messerli. - Bern : Geogr. Inst. Der Universitat, Bern, 1978.

OOU Checklist of Canadian directories 1790-1950 = Répertoire des annuaires canadiens 1790-1950 / Dorothy E. Ryder. - Ottawa : National Library of Canada, 1979.

OOU Early thematic mapping in the history of cartography / Arthur H. Robinson. - Chicago : The University of Chicago Press, 1981.

UT Fire insurance maps in the Library of Congress: plans of North American cities and towns produced by the Sanborn Map Company: a checklist / compiled by the Reference and Bibliography Section, Geography and Map Division ; introduction by Walter W. Ristow. - Washington, D.C. : Library of Congress, 1981.

UT The history of the cartography of Cyprus / Andrea Stylianou and Judith A. Stylianou. - [s.l. : s.n.], 1980. - (Nicosia, Cyprus : Zavallis Press).
(Publications of the Cyprus Research Centre ; 8).

UT Map collections in Australia: a directory / compiled and edited by N.M. Rauchle. - 3rd ed. - Canberra : National Library of Australia, 1980.

UBC Map librarianship and map collections. - Champaign, Ill. : University of Illinois Press, 1981.

UBC Natural Resources Information Directory. - Edmonton, Alberta : Alberta Energy and Natural Resources, 1982.

DICTIONARIES AND GAZETTEERS

UBC Gazetteer to maps of France, Belgium and Holland map series, GSGS 2738 and GSGS 4042. - Scale 1:250,000 / U.S. Board of Geographic Names. - Washington, D.C. : Army Map Service, 1944.

UBC The Historical gazetteer of Iran / Adamec Ludwig W. - Graz : Akademische Druck u. Verlagsanstalt, 1976.
2v.

PLACE NAMES BOOKS

UBC Geographic names of the Antarctic / compiled by Fred G. Alberts. - Washington, D.C. : National Science Foundation, 1980.

TRAVEL BOOKS

OOU A.M.C. guide to Mount Washington and the Presidential Range. - 2nd ed. / Appalachian Mountain Club. - Boston : Appalachian Mountain Club, 1979.

* * *

NEW PUBLICATIONS

U.W.O. MAP LIBRARY COMPUTERIZED LISTING OF ATLASES

This listing combines some features of early atlas listings produced by the UWO Map Library with those of the Union List of Atlases in Ontario Universities, by Kate Donkin and Rita Finch, and the computer techniques available to the Map Library at Western. The listing is to serve as an aid in reference work, inventory control and acquisition.

The initial listing is going to have approximately 1300 entries, for some 1600 items, if all editions and volumes are counted, reflecting the holdings of UWO Map Library. Each entry contains the following information: title, author, publisher, edition, date of publication, place of publication, as well as number of volumes and number of copies. The final copy will be printed on 8.5" by 11" paper.

The database Atlas involves various systems and application programmes on both DEC-10 and CYBER-170 systems. The programming environment of the DEC-10 system uses DPL and RUNOFF.

Copies of the listing will be available at cost, expected to be around $10, early in 1983. For further information and placement of advance orders please write to:

Cheryl DesJardine
Map Library
Department of Geography
University of Western Ontario
London, Ontario
N6A 5C2

* * *

EARLY MAPPING OF NORTH AMERICA

An offprint from The Map Collector which may be of interest is briefly described below:

Heidenreich, Conrad E., and Dahl, Edward H. The French Mapping of North America, 1600 - 1760. Berkhamsted, Herts, England: Abacus Press, 1982. 20 p., 24 maps. $5.00.

This offprint is available from D & E Lake Ltd., 106 Berkeley Street, Toronto, Ont. M5A 2W7. It was originally published as "The French Mapping of North America in the Seventeenth Century" in The Map Collector, no. 13, December 1980, pp. 2 - 11 and "The French Mapping of North America, 1700 - 1760," in The Map Collector, no. 19, June 1982, pp. 2 - 7. Pages 18 - 20 in the reprint are additions.

* * *

MAPS OF MANITOBA

Here is a list of recent maps published in Manitoba and currently in print. They are as follows:

Winnipeg (Base Map). 1:30,000. Winnipeg, Province of Manitoba, Surveys and Mapping Branch, 1981.

Surficial Geological Map of Manitoba. Map 81-1. 1:1,000,000. Winnipeg, Manitoba Department of Energy and Mines, Mineral Resources Division, 1981.

Official and Departmental Boundary Maps. Winnipeg, Province of Manitoba, Surveys and Mapping Branch, 1980. This is a collection of 37 maps published in a single binder. All maps are 8 1/2" X 11" in size and no scale is given.

In addition to the above maps, the Surveys and Mapping Branch, Manitoba, will soon publish in the fall of 1982 or spring of 1983 a new edition of The Economic Atlas of Manitoba. The last edition of this atlas was published in 1960.

Hugh Larimer
University of Manitoba
Map and Atlas Collection

* * *

FACSIMILE MAPS ISSUED BY THE LIBRARY OF CONGRESS

In 1981, the Library of Congress published high-quality coloured facsimiles of four rare sixteenth and seventeenth-century manuscript maps and charts, the originals of which are held by the Geography and Map Division. Each facsimile, printed on heavy paper stock, is from a limited edition of 500 copies and is accompanied by an average 500-word descriptive text by a staff member of the Geography and Map Division. Cataloguing-in-publication data, according to AACR 2, is printed on the reverse of each of the accompanying brochures.

The four maps available are:

1. Battista Agnese's map of the world, ca 1544. This vellum map from a "portolan" atlas by the Genoese chartmaker is an oval world map showing routes of explorers (for example, Magellan) and is surrounded by cherub-like windblowers.

2. Mateus Prunes' portolan chart of the Meditrerranean Sea and Western Europe, 1559. This extremely rare vellum chart by the Majorcan chartmaker, Prunes, is one of his thirteen known surviving charts. Drawn in typical portolan style, the chart features a number of decorative wind or compass roses, and windblowers at the edges. The chart includes numerous place names.

3. Samuel de Champlain's map of the northeast coast of North America, 1607. It is doubtful that anyone would argue with the statement in the accompanying text that this map ranks as "one of the great cartographical treasures of America." This map, drawn by Champlain

on vellum during the winter of 1606-7 at Port Royal, is based on his own explorations and reports from Indians, and shows topography, settlements, and ship routes.

4. Johannes Vingboons' map of Manhattan, 1639. This earliest known map of the Manhattan area of New York City was copied from the original map, no longer in existence, between 1665 and 1670. The map indicates buildings, farms, roads, ships anchorages and soundings.

The facsimiles are available from the Library of Congress Information Office, Box A, Washington, D.C., 20540. The cost of each facsimile varies: Agnese $10.00; Prunes $20.00; Champlain $15.00; Vingboon $15.00--and there is an additional charge of $1.50 for shipping and handling for each map.

Betty Kidd
National Map Collection

* * *

MAPPED ZIP-CODE DATA

The Wisconsin Bureau of Health Statistics has just published a report entitled Population Estimates and Maps For Five-Digit ZIP Code Areas in Wisconsin, 1980-1981. This volume contains a description of the methodology employed in our project, a list of non-mappable ZIP Codes, maps for each county showing five-digit ZIP Code boundaries overlaid on highway maps, a breakdown of ZIP Code by minor civil division with proportional allocation, population estimates and ZIP Code area population totals for 1980 and 1981, and an accurate map of the three-digit ZIP Code area boundaries in Wisconsin.

The publication, completed in September 1982, contains over 250 pages and is available for $5.00 a copy from (checks or money orders payable to):

Wisconsin Bureau of Health Statistics
Division of Health, Rm. 480
P.O. Box 309
Madison, WI 53701

Because the information contained in this report is unavailable elsewhere, we believe this publication will be of great interest to your readers. To our knowledge, similar data for other states is also unavailable. Perhaps the dissemination of our report will spur others to do studies which will facilitate the mapping and use of ZIP Coded data in the United States.

Russell S. Kirby, Ph.D.
Research Analyst
Bureau of Health Statistics
Madison, Wisconsin

* * *

REVIEWS

Maritime Resource Management Service. Nova Scotia Fisheries Atlas. Halifax: Nova Scotia Department of Fisheries, 1982. 44p. $12.50. (Available from the Nova Scotia Government Bookstore, 1597 Hollis Street, Halifax, N.S. B3J 1V4)

Nova Scotia's history, culture, and economic base revolve around resource industries. By far the most important of these resource industries are the fishing and related industries.

As late as the end of the 1940s and early 1950s the idea that there was a finite limit to the exploitation of oceans was fairly theoretical. At that time, the rapid expansion in the size of ships and the technology for finding, catching, and storing ocean resources rapidly altered our views. Establishment of various fisheries regulatory agencies and commissions, for example, ICNAF (the International Commission for the North Atlantic Fisheries), the increase in fisheries research devoted to base-line data and subsequent quotas and other regulations have changed industry outlooks. What was, to a great extent, a wide open industry has become, by necessity, highly regulated. As a result of much increased competition, industry and government have been forced to scrutinize all aspects of the fishing industry.

The Nova Scotia Fisheries Atlas was commissioned by the Nova Scotia Department of Fisheries in 1979 and produced by the Maritime Resource Management Service in 1982. This first attempt was designed to give the "average concerned citizen" a picture of the many aspects of the fishery. If the intention of N.S. Department of Fisheries was to provide a framework for discussion, a starting point from which to begin to shape an impression, then to some extent they have succeeded. Unfortunately, this is not an atlas which will be referred to very often by any serious student of the fisheries.

The atlas project began in 1979 as an idea for a single map sheet or series of a few map sheets looking at various general aspects of the industry. Once underway, the wealth of data available made the project blossom into the atlas now published.

The atlas is expensively produced with four-colour processing and a wealth of symbology. Clearly, a great deal of thought and many good ideas were taken into consideration. The atlas is in five sections: "A" Landing and Major Species, "B" Fishing Fleet, "C" Employment, "D" Onshore Facilities and Infrastructure, and "E" Fish Product Exports. The atlas is soft-covered with a metal coil style of binding and measures 36 by 28 cm. Map sheets are on a scale of ca 1:2,000,000 and no projection statement is made.

Unfortunately, there are many serious flaws in this atlas. Firstly, one has to wonder about the base data. The information is only from 1979 with a small amount of 1980 data. Why just one year? Why just this particular year? Is this representative of what can be expected in other years? What effect can the reader expect to see when the George's Bank dispute is settled with the United States, particularly in the areas on the Bay of Fundy, Yarmouth area, and South Shore of Nova Scotia? The data is available; why wasn't the atlas established to reflect changes over a 5 or 10-year period?

Secondly, the primary unit of comparison is the Fisheries Statistical Unit (FSU). Nowhere in this atlas is a listing given of what constitutes a FSU nor what these numbers represent in terms of major plants or harbours. Do the FSUs have names as well as numbers? Are they static units or do they change from time to time?

Thirdly, the symbology although varied and imaginitive is at times quite confusing. The map "Other Important Species" includes information on molluscs, crustaceans, seaweed types and location for seaweed occurrence, aquaculture sites, dollar values of landings, and areas for shellfish closure. In addition, there is information about where and why there is a low growth of seaweed and types and locations of seaweed processing facilities; an inset is included to show what these various seaweed types look like in an abbreviated form. This is a map to spend some time with, not only because of the host of information portrayed, but also because of the confusing, cluttered symbology used. Additionally, a lot of information is hard to tie to the FSUs. I found this particularly irritating with the map sheet "Nearshore and Offshore Vessels" where hull-shape symbols are stacked one over the other with bows aimed towards shore. Unfortunately, it is quite difficult to see what FSUs are being pointed at.

There is no doubt that the production of a fisheries atlas has been long overdue for Nova Scotia. In fairness, this atlas does contain some interesting information and will be a help to anyone trying to find out what components to look at when studying Nova Scotia's fisheries industry. I hope that a subsequent atlas or atlases will be produced using the same base maps but with more simplified symbology more closely tied to the statistical districts. This will certainly enhance the value of this project.

Kirk MacDonald
Bedford Institute of Oceanography
Dartmouth, Nova Scotia

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Farrell, Barbara, and Aileen Desbarats. Guide for a Small Map Collection. Ottawa: Association of Canadian Map Libraries, 1981. 88 p. $12.50.

Most professional map librarians have long felt the need for a simple, straightforward guide to the principles of map librarianship, particularly one that was directed at newcomers to the profession. The corpus of literature concerning map librarianship has grown so large and the field so complex that the new map librarian can easily be confused and overwhelmed by the amount of information and opinion available in the books and journals and newsletters of the professional associations. The Association of Canadian Map Libraries has issued a guide which goes far toward filling this need. It is Barbara Farrell and Aileen Desbarats' Guide for a Small Map Collection.

The origins of the guide go back several years when A.C.M.L. decided to

collect and publish a series of papers focusing on the informational needs of the beginning map librarian. Because of the resulting overlap and stylistic differences in the papers submitted, however, it was wisely decided not to rush into print with a flawed publication but rather to re-cast and re-write the work completely. The result is the publication at hand: a practical guide for someone in charge of a small map collection.

The guide is impressive for its no-nonsense approach, its simplicity of language, and its ease of use. It is obvious to this reviewer that a great deal of care has gone into its preparation and publication.

The guide is divided into seven chapters, each of which begins with an index to the topics covered. The chapter headings are: I, Assessment; II, Maps; III, Acquisition; IV, Physical Control of the Map Document; V, Access to the Collection; VI, Reference Service; and VII, Use of the Collection. Boldface type is effectively used throughout to identify chapter headings, subheadings, and paragraph headings. For ready reference and to avoid repetition, each paragraph is numbered with a consecutive decimal number (e.g., 2.1, 2.2, 2.3, etc.). Numbers in parentheses within paragraphs refer to related discussions found elsewhere in the guide. As a further aid, points to be considered by the reader are marked with a dot and things to do have been marked with an asterisk. Additional readings are identified unobtrusively in the text by author's name and date of publication. Full citations are found at the end of each chapter.

The authors note in the foreword that when approached by newcomers to the field, "the challenge to trained map librarians is ... to sift and select from their knowledge and experience just enough information and advice to get the newcomers started at a level of operation consistent with the needs of a small collection, but not to confuse them with too much detail." In this guide the authors have admirably met this challenge.

In addition to serving as a "practical guide for someone in charge of a small map collection," it will be a valuable supplemental text for students taking graduate courses in map librarianship and special librarianship. As a matter of fact, most map librarians should find a special place on their reference shelf for this useful guide.

Richard W. Stephenson
Library of Congress
Geography and Map Division
Washington, D.C.

* * *

Hodgkiss, Alan G. Understanding Maps - A Systematic History of Their Use and Development. Kent, England: William Dawson and Son Ltd., 1981. 209 p. 126 illus. and maps. £15.00 in U.K. (ISBN 0-7129-0940-0, cloth)

The attempt at acqainting the public with what maps are, how they are used, and in understanding maps in general has produced several books on these topics over the past years. Notable among them, Robinson and Petchenik in

1976 produced The Nature of Maps, which was the first in-depth investigation of the philosophical basis of the map and its cognition. Two years later, in 1978, Muehrcke published Map Use in which he endeavored to provide a comprehensive philosophical, theoretical, and practical treatment of map appreciation. Hodgkiss' approach to gaining an understanding of maps is based on their historical development and use. This book, not to be confused with one of the same title by John Keates published in 1982, is essentially about the history of maps and mapping.

Consisting of twelve chapters, the arrangement of them is topical rather than chronological, although the material in each chapter is generally ordered chronologically. Although the theme of the book is the art and technique of using maps as a visual means of communicating information and global views, only the first three chapters deal with maps as media of communication and the fundamentals of mapmaking, which include both the development of a cartographic language and of a cartographic vocabulary. The remaining chapters treat the historical aspects of making maps, the evolution of the world map, regional maps and atlases, nautical charts, route maps, town plans and views, thematic maps, official mapmaking today, and modern commercial and private cartography. The volume concludes with a select bibliography organized by chapter and an index.

Technically the book is well-produced. Of a double-column format, the text is set in an easy-to-read serif type style. Sections and subsections of chapters are clearly identified by bolder and larger type faces. The paper used in this volume was well selected as evidenced by the particularly high quality of the illustrations, many of which are photographs taken from early carrographic works. It is unfortunate, however, that at least some of the more colorful maps could not have been reproduced in color. (The dust jacket bears the only colored illustration!) The impact of color both as a symbol and in the establishment of cartographic convention, as an aid to understanding maps is, for the most part, overlooked.

The major difficulty with the book comes from the inability of the author to fully develop the theme inherent in the title. During the first seventy pages, Hodgkiss addresses those topics that normally are associated with "understanding" maps. For example, the reader is introduced to what maps are, what kinds of limitations apply to maps, the many uses to which maps are put including route-finding on land as well as water, military applications, and the like. Differences among map types are discussed along with the notion of cartographic communication. The author traces the development of those elements that are peculiar to cartographic symbolism (vocabulary) including lettering. Beyond these pages there seems to be lacking a common thread that holds the book together. There is considerable detail provided by various illustrations and examples, but one tends to become overwhelmed with it, such that no clear relation to achieving a greater understanding of maps becomes apparent.

Minor annoyances were prompted in a few instances where the author detailed particular subjects in the text without using supportive illustrations (see in particular the discussion of Ziegler's wave pattern on page 44 and Apian's 1568 woodcut map of Bavaria on page 45). Since these were worthy of some discussion in the text, this reviewer would have preferred visual reinforcement as well.

In essence, this book is a somewhat traditional approach to the history of cartography. Sections on remote sensing, computer mapping, and other

modern techniques blend the old with the new to help eliminate gaps. As a result the final product is interesting, informative, and one which will undoubtedly become a widely used text for any student interested in maps and mapping.

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St. John's, Newfoundland

* * *

Noe, Barbara R. Facsimiles of Maps and Atlases: A List of Reproductions For Sale by Various Publishers and Distributors. 4th ed. Washington: Library of Congress, 1980. iv, 35 p. $2.25. (USGPO SN 030-004-00019-1, LC 79607782, ISBN 0844402982)

The time-worn adage "better late than never" certainly applies in the case of the following notes, which are meant to serve more as a reminder of an important publication rather than a traditional review.

Facsimiles of Maps and Atlases is now in its fourth edition, with reprints produced for the first edition (1960, reprinted later the same year), second edition (1966, reprinted in 1967), and third edition (1968, reprinted with a supplement in 1971). It is one of those rare governmental publications which are by their very nature of great interest to a wide spectrum of readers: commercial dealers, librarians, and the general public.

John A. Wolter, Chief, Geography and Map Division, Library of Congress, who wrote the introduction to the current edition of Facsimiles..., notes quite correctly that "the great increase in prices for rare maps and atlases... has made them prohibitively expensive for most libraries and many amateur collectors; thus, facsimile publication has become increasingly important in the past few years." Eight years earlier, in considering the source material for students of American cartography, John Wolter commented: "The increase in facsimile map and atlas production, if it can be taken as indicative of increased interest in American historical cartography, is encouraging to those of us who are working in this field."[1] To which one could add that what was being said for the United States applied to Canada and other parts of the world. The skyrocketting costs of early cartographic originals coupled with the considerable growth of interest in local and regional history as well as one's own "roots" has resulted in a remarkable development of facsimile publications. In analysing these changes, the radical improvements in the printing processes should not be overlooked. Innovations in offset presses have made it possible even for the modest, low-budget, non-profit organizations to embark upon publication of one or several maps or atlases.

The figures illustrate the above points. From a six-page list with few dozen entries (1960), Facsimiles... has grown to include over 140 publishers with hundreds of items offered for sale. Publishers are arranged in alphabetical order, with addresses and, in some cases, prices of specific publications listed. An index with geographical locations and

names of original authors is also provided.

Inevitably, in a publication of considerable scope there are some errors and omissions. The gap between the date of compilation (1978) and the date of publication (1980) presents an obvious difficulty. Some smaller publishers simply faded away. Letters with requests for catalogues and other information were returned unopened from such firms as Alexandria Drafting Company, Virginia; Branch County Historical Association, Michigan; and the Gallery, New York, to name only a few. Some major publishers have changed their location (Penn Prints, formerly of New York, now operates from Secaucus, New Jersey). Prices have gone up and, since we seem still to be in an inflationary era, it must be assumed that in most cases the price shown is only an approximation and not a firm quote. Some items listed in Facsimiles... no longer appear in publishers' lists. Museum of New Mexico Press, Historical Society of Michigan, etc., now offer less than half of what they had at one time.

The index, although helpful, may be in some cases misleading. Under "Canada," for example, it lists four publishers, while there are actually seven or eight included in the current edition. To a novice, the allocation of space may give a wrong idea about the "specific gravity" of a publisher. In consulting the index one must keep in mind that it contains only the title mentioned in the text. Thus, there is a single entry for New York (1778), offered by a publisher presently not known to the local post office, while the fact that another publisher has more than a dozen different maps and plans of New York is not evident since that firm (Historical Urban Plans) is accorded only a general entry of eight lines for over 400 items available in stock.

Having said that, it is important to reiterate that this is a unique and highly valuable publication, a "must" for all map libraries. Should a new edition or a supplement be considered by the Library of Congress, the Association of Canadian Map Libraries could offer its services in providing a list of a dozen or so Canadian facsimile publishers which have emerged in recent years.

Reference

[1]John A. Wolter, "Source Materials for the History of American Cartography," SLA Geography and Map Division Bulletin 88 (June 1972): 2-16.

Serge A. Sauer
University of Western Ontario
Map Library
London, Ontario

* * *

Snead, Rodman E. World Atlas of Geomorphic Features. Huntington, N.Y.: Robert E. Krieger Publishing Co.; New York: Van Nostrand Reinhold Co., 1980. ix, 301 p. maps, satellite photos, references, and index. 28.5 x 22 cm. $39.50 (U.S.). (ISBN 0-88275-272-3)

The first edition of this atlas, published in 1972, was unique in thematic atlases. Dr. Snead's aim was to produce an atlas portraying the distribution of a wide variety of physical features on world and regional maps in a single unified work. This revised edition follows a similar format; it brings together, not only the easily acquired maps found in most world atlases, but also many maps which are difficult to obtain. There are a number of maps which would require an extensive search in specialized sources not readily available in most libraries; examples include the maps on volcanoes depicting some 161 volcanoes and the maps on active glaciers.

The topic selections and outline followed are based mainly on the standard college texts of Strahler and Thornbury on physical geography and geomorphology. This edition has been divided into seven sections; the first section is on general geography and the remainder have been assigned specific topics. There is a brief introductory text for each section and a short explanatory text accompanying the maps. The text defines the feature, i.e. it distribution. There are source references in the text and, at the end of the atlas, the major references used in compiling the atlas are listed under the sectional headings.

It is impossible not to sympathize with Dr. Snead for the cartographic problems faced in compiling an atlas such as this. The problems encountered in mapping distributions of physical features on small-scale world maps are extremely difficult and often nearly impossible. This is specially true for areas such as the United States and Europe, where extensive research has been carried out in the field of physical geography and geomorphology. Regional maps have been included for these areas and, in this edition, the maps have been enlarged to page-size, which allows for better plotting.

There are some 103 maps and approximately 166 pages of text. There has been a considerable increase in the text in this edition. This is due to the new numbering system used on maps depicting a variety of features. The names have been removed from the maps and replaced by numbers to identify the features. This avoids some of the clutter of lettering and permits extra features to be shown. A list of the numbers has been compiled with the names of the features they represent. These lists are incorporated into the text. The new method has enabled the author to add more information about the feature. For example, on the map showing the distribution of the world's major earthquakes, not only the location of the earthquake is given but the date and, if there was any loss of life, the number of casualties are listed. The list corresponding to the world distribution of mountain peaks provides the name and the height in feet and meters. The extra information adds to the value of the atlas as a reference tool. A critical comment must be made regarding the placing of the list in relation to its map: some lists are found before the map, others follow the map. The list for the map on meteoritic craters is separated by two pages of textual material from its map.

In the first edition of this atlas the maps were not numbered. In this edition, each map has been assigned a number; this has facilitated the use of the map and text. There are fewer coloured plates used; if colour is used, it is often a single colour. One of the maps which was a colour plate in the first edition is "World Topographic Regions"; this is now black and white with letter symbols. This type of symbolization is not successful for distribution maps of this kind.

There are a number of satellite photos which are related to the maps in the atlas. These satellite photos depict many of the features and the text refers the user to the various maps.

The index has been divided to correspond to the sectional headings. It would have been more useful if the index was based on the atlas as a whole. If a user is not familiar with the terminology, he may have difficulty finding the information he wants.

Dr. Snead has stated that this work is still in its introductory stage and such a work is a lifetime enterprise. There has been considerable new data in this edition and, no doubt, future editions will have more revision and the findings of new research.

The atlas is a valuable reference tool; the text is useful for the simpler features but more complex topics such as morphoclimatic regions require a more thorough explanation. As more and more data becomes available it might be valuable to have a textbook; the atlas could complement the text.

Vivian M. James
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Department of Geography
Map Collection
Montreal, Quebec

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International Bathymetric Chart of the Mediterranean.
Prepared under the aegis of the Intergovernmental Oceanographic Commission by the Head Department of Navigation and Oceanography, Ministry of Defence, 8,11 Liniya, Leningrad B-34, 199034, U.S.S.R. Price of the chart in 10 sheets $40.00 U.S.; price per sheet $4.00 U.S.

The chart consists of ten sheets in Mercator projection at a scale of 1:1,000,000 at 38°N. The nomenclature of ocean bottom features follows the guidelines prepared for the General Bathymetric Chart of the Oceans (GEBCO).

What I would like to do, initially, is to compare the International Bathymetric Chart of the Mediterranean (IBCM) to the GEBCO series, which you probably are all familiar with.

The series of world GEBCO charts at 1:10,000,000 was recently completed after several years of sheet-by-sheet release. Its success and usefulness for planning is quite evident. However, it has several faults and drawbacks. The IBCM has to a great extent overcome the shortcomings of the GEBCO sheets while at the same time maintaining the style which has made the GEBCO series so popular.

I would like to briefly mention three areas where the IBCM has improved on the GEBCO. Firstly, the scale of 1:10,000,000 at which GEBCO is produced tends to limit its use to fairly general planning and display uses. The scale of 1:1,000,000 at which the IBCM is produced makes it more useful for

the scientific user for whom this project was initially intended. Secondly, the ten sheets that make up the IBCM were all produced at the same time. By doing this the problems that arose with colour consistency from sheet to sheet within the GEBCO series were, for the most part, minimized. Third, there were some changes in style within the GEBCO series, the most outstanding of which occurred between sheets 5.08 and 5.12 along the Mid-Atlantic Ridge. The IBCM is very consistent in style throughout.

The International Bathymetric Chart of the Mediterranean (IBCM), in contrast to the GEBCO chart series, is on the whole a more useful, consistent, and eye-pleasing product.
In addition to the Mediterranean Sea, the IBCM includes an inset of the Black Sea at a scale of 1:2,000,000 at 38°N in Mercator projection and an inset of the Mediterranean showing generally accepted geographic subdivisions.

The index to the sheets is clear and shows the index to the manuscript fieldsheets (at 1:250,000) from which the main sheets were compiled. Sources of detailed survey are given with a listing of contributing organizations and institutions. I recommend this series for all map collections. This is a quality product and one that will be referred to often by anyone interested in the Mediterranean region.

Kirk MacDonald
Bedford Institute of Oceanography
Map and Chart Collection
Dartmouth, Nova Scotia

* * *

NEWS AND COMMUNICATIONS

CLA ANNUAL CONFERENCE: CALL FOR PAPERS

The contributed papers session provides CLA members an opportunity to participate in the conference program, to present new ideas and to explore areas of interest not otherwise covered by the conference program.

Papers may relate to any topic; however, papers relating to the conference theme are encouraged. The theme of the 1983 conference is "Libraries in a Period of Constant Change: Challange and Response."

The conference will be held in June 1983 in Winnipeg, Manitoba.

Instructions to Contributors

1. Each speaker will have 30 minutes to present his or her paper and answer questions.

2. Each author must submit a notice of his or her intention to present a paper along with four copies of an abstract (150 words) and a provisional title by January 31, 1983.

3. Each author must submit four copies of the paper to be presented by April 15, 1983.

4. Each author will be informed of acceptance or non-acceptance of his or her paper by May 16, 1983.

5. The author must be present at the CLA Annual Conference to present the accepted paper and lead the discussion.

6. Papers may be published later in the Canadian Library Journal.

Deadlines

1. Notice of Intent, Abstract and Title - February 15, 1983.

2. Submission of paper - April 15, 1983.

3. Notification of acceptance - May 15, 1983.

4. Presentation of paper - June 1983.

Submit to:

Dr. William F. Birdsall
University Librarian
Dalhousie University Library
Halifax, Nova Scotia B3H 4H8

* * *

SLA G&M DIVISION: CALL FOR PAPERS

Annual conference: New Orleans, Louisiana, June 4-9, 1983

Conference theme: Removing Information Barriers

Papers on the following topics are encouraged:

Removal of the information barriers which one faces in providing cartographic, geographic, and geologic information.

Geographic distributions in the New Orleans area, the Lower Mississippi River Valley, and the Gulf Coast Region; especially as they relate to anthropological, architectural, historical, economic, geologic, biological, or sociological factors.

Audience:

Division members provide cartographic, geographic, and geologic information services to the academic community, to governmental agencies, and to the private sector.

Abstracts:

Full page abstracts should reach the Division Program Planner no later than October 1, 1982.

Full text of papers should reach the Division Program Planner no later than March 1, 1983.

Division Program Planner:

Ms. Marsha L. Selmer
University of Illinois at Chicago
The Library - Map Section
P.O. Box 8198
Chicago, IL 60680
(312) 996-5277

* * *

AUSTRALIAN MAP CURATORS' CIRCLE: ANNUAL CONFERENCE

The Conference Convenor, Jock Murphy, reports that arrangements for A.M.C.C. 1983 are progressing well. Jock is supported by a strong committee of Judith Scurfield (née Wells, our Federal Vice-President), Jan Shultz, Dr. Tom Perry and Rob Bartlett.

The date is confirmed as 2-4 February, and the conference sessions will be in one of the well-equipped theatres in the Physics Building at the University of Melbourne. Arrangements for accommodation have been made with Janet Clarke Hall, one of the University colleges.

Already, the papers to be presented are impressive, with contributions from Phil Barton (New Zealand), Dr. W.A.R. Richardson of Flinders University who

will speak about, inter alia, the Dieppe maps, and speakers from the Hydrographic Service and the Port Phillip Pilot Service.

* * *

AUTO-CARTO SIX

The Sixth International Symposium on Automated Cartography will be held this year in Ottawa - Hull, October 16 to 21, 1983.

Theme: Computer-assisted Cartography: International Perspectives on Achievements and Challenges

Topics: Urban Mapping Census Mapping Topographic Mapping Hydrographic Cartography Resource Analysis and Mapping Land Information Systems Geographic Information Systems Remote Sensing Geostatistical Processing, Analysis and Display Computer-Assisted Design Standards and Data Transfer Bench-Marking and Evaluation Education and Training Documentation and Preservation Developing Nations and Appropriate Technology Raster Scanning Technology Innovative Software Videotex Systems

Location: The National Capital Region of Canada, with meetings, equipment exhibitions, mobile workshops, and receptions in Ottawa-Hull and "Silicon Valley North."

General Information: Auto-Carto Six Secretariat, Department of Geography, Carleton University, Ottawa, Ontario (613) 231-2652

Technical Program: Dr. Barry Wellar, University of Ottawa (613) 231-4045/231-2395

Exhibits: Dr. David Rothwell (613) 995-5994/231-2652

* * *

CARTO TECHNIQUES III

The Ontario Institute of Chartered Cartographers and the Cartographic Committee of the Canadian Institute of Surveying will be holding a series of joint cartographic seminars and workships at Sir Sandford Fleming College, School of Natural Resources, Lindsay, Ontario.

The joint seminars will be titled CARTO TECHNIQUES III and are scheduled for May 30, 31, and June 1, 1983. Topics will include Cartography (Thematic, Topographic, Urban, Automated, etc.), Surveying, Photogrammetry, Geographic and Geophysical Information, and Remote Sensing.

The O.I.C.C. will also be holding its Annual General Meeting on May 30, 1983.

Following the success of the previous Carto Technique Seminars/Workshops, this year's scheduling will be further enhanced to utilize facilities and

expertise to their fullest, incorporating the program format of Carto Techniques II and its "State of the Art" mandate.

The O.I.C.C. will again be offering accreditation in select seminars and workshops as part of its certification program. Those seminars and workshops in which certificates are offered will be open to all participants.

Tuition fees are tentatively set at $100.00 registration (3 days). Meals and lodging separate.

The O.I.C.C. and C.I.S. will be encouraging displays from academic institutions, government agencies, private companies, and as before, soliciting commercial exhibitors to participate both in displays and take an active part in the conference as a whole.

Southern Ontario regional and municipal governments, private companies, and interested affiliates are presently being contacted by mail and invited to a general open house to view the commercial exhibits and discuss "State of the Art" technologies with commercial representatives and conference delegates.

Further information will be sent out shortly. For immediate information or questions, contact Mrs. Zita Devan, Conference Centre, Sir Sandford Fleming College, School of Natural Resources, Box 8000, Lindsay, Ontario K9V 5E6, or telephone (705) 324-9144.

* * *

3RD CARTOGRAPHIC ARCHIVISTS' SEMINAR

This seminar for "newcomers" to this field will be held the week of March 7-11, 1983. The National Map Collection welcomes "old-timer" volunteers to assist in the instruction portion of the programme and to share their experiences with the "newcomers." For interest, an outline of the sessions at the 1978 seminar are appended to this report; however, the 1983 seminar will probably vary significantly.

For this seminar, the Public Archives of Canada can provide funding to cover transportation, hotel, and meal costs. A per diem rate for meals/incidentals will be provided.

Sessions at the 1978 seminar:

1. Familiarization and Orientation: An introduction to cartographic archives, including discussion of the importance to archives of maps and the need for proper collection and administrative policies.

   A discussion period in which each of the participants will discuss her/his collection in terms of scope, condition, future plans and problems.

2. Public Service: The clientele of a cartographic archives; the knowledge and skills required by reference staff; the research room.

3. Acquisition of early maps: The development of collections oriented to specific regions or interests; where to acquire early maps - map dealers, other collections, etc.; photocopying/microfilming programs.

4. Acquisition of government cartographic records: The negotiation for and transfer of records from other government departments; records management; the General Records Disposal Schedule and its application to cartographic materials.

5. Acquisition of current maps: general, thematic and series mapping in Canada; government mapping agencies at federal, provincial and municipal levels; private map producers; transfers and redistribution; photocopying/microfilming programs; information files.

6. Custody of government cartographic records: accessioning; organization by non-geographic systems; the application of the record group concept to cartographic records; finding aids and inventories.

7. Descriptive cataloguing and classification: necessity for cataloguing; cataloguing systems available; Canadian cataloguing rules for maps, their development and current status; the relationship between Canadian rules and international standards; the automation of map cataloguing; varying forms of classification.

8. Cataloguing workshop: an opportunity to use the Canadian cataloguing rules for maps.

9. Conservation: tour of conservation areas; conservation techniques used, with emphasis on simple techniques; problems encountered by the participants.

10. Preventive conservation: handling procedures; review of available storage equipment; space problems.

11. Microfilming of maps: various formats used for maps--35 mm, 70 mm, 105 mm, microfiche; the National Map Collection's 105 mm program; other reproduction techniques for maps.

12. Discussion on co-operation among cartographic archives: acquisition and jurisdiction; National Union Catalogue of Maps; redistribution of surplus maps; microfilming and photocopying co-operative programs; co-operation with other map collections.

13. Surveying and mapping in Canada: its history and present practice.

* * *

SLA G&M DIVISION: REPORTS ON 1982 CONFERENCE

Members of SLA's Geography and Map Division were treated to a full schedule of events, meetings, and papers capably arranged by the division's program planner, James O. Minton, map librarian, University of Michigan. Featured

in the program for the first time were an SLA-sponsored continuing education course specifically aimed at the needs of geography and map librarians; a division poster session; a streamlined business meeting; and a division awards dinner.

The continuing education course of special interest to division members was offered on Saturday, June 5. Entitled "Remote Sensing and Geographic Information Systems," the course was taught by Eugene Jaworski of Eastern Michigan University, Ypsilanti, and Charles E. Olson, Jr., of the University of Michigan. The course was particularly apropos of the conference theme, "New Technologies--New Frontiers."

The Geography and Map Division's Executive Board and committee chairs met on Sunday afternoon. Later, the division's first poster session was held in Cobo Hall in conjunction with the opening of the conference exhibits. Fifteen map librarians displayed and discussed "Maps for Special Librarians." This well-received session included displays of cartographic materials in the following categories: "Biological Sciences & Pharmaceutical," "Business & Finance & Insurance & Employee Benefits," "Chemistry & Metals/Materials," "Education & Library Management," "Engineering & Science/Technology," "Environmental Information & Natural Resources," "Information Technology & Telecommunications," "Food & Nutrition," "Newspaper, Publishing and Advertising & Marketing," "Public Utilities," "Physics-Astronomy-Math & Nuclear Science," "Military Librarians," "Social Science, Museums, Arts & Humanities, and Pictures," "Petroleum & Energy Resources," and "Aerospace."

Sunday's events concluded with the division's evening open house in its suite at the Pontchartrain Hotel.

The program on Monday, June 7, was devoted exclusively to division business. This year, in an attempt to streamline the conduct of division affairs, the program was divided into four sessions. At the first session held from 12 to 2 p.m., division committee chairs presented oral reports and received feedback from the more than 50 members present. Reports delivered included those of the Archives, By-laws, Cataloging, Membership, Professional Concerns, Publications, Standards, and Education Committees. The latter's report took the form of a slide/tape presentation entitled "Introduction to Map Libraries." This recently completed 20-minute slide/tape presentation was prepared by Anita Oser, University of Western Carolina, Cullowhee, N.C., and Richard W. Stephenson, of the Library of Congress Geography and Map Division. The presentation was enthusiastically received by the membership.

The second session, held from 2:15 to 3:15 p.m., consisted of reports from division representatives to various committees and organizations.

The third session, from 3:30 to 4:15 p.m., consisted of reports from other professionally related organizations. Included in this session was a report by David K. Carrington on the current activities of the Geography and Map Division, Library of Congress. He noted that the Library of Congress has joined with the University of Michigan to publish in microfiche the area cutter lists for the United States. This will supplement the Library of Congress "G" classification schedule. Mr. Carrington also reported that the Library was about to begin a pilot project to reproduce on 105mm film its entire collection of 19th-century land ownership maps of American counties.

One aspect of this session with a potential adverse effect on map libraries was a report by an official of the National Ocean Survey that it is considering the possibility of copyrighting its nautical charts and increasing the sale price of each chart from $4 to $45. The latter charge would permit the Survey to recover the full cost of producing each chart, including basic research.

The final session of the business meeting was conducted from 4:30 to 5:30 p.m. At this session, all business requiring action of the members was conducted including the approval of the minutes from the last business meeting, the treasurer's report, and the Nominations Committee report. Elected unanimously were Marsha Selmer, University of Illinois at Chicago Circle, vice chair, and Muriel Strickland, San Diego State University, secretary-treasurer. James Minton, University of Michigan, this year's vice chair, automatically becomes the division chair for 1982-83.

On Monday evening, the division's first awards dinner was held in the Joliet Room of the Westin Hotel. Traditionally, awards have been presented at the annual business meeting. The evening's dinner speaker was Sherman Wu, U.S. Geological Survey, Flagstaff, Ariz., who discussed "Planetary Topographic Mapping." The highlight of the evening, however, was the presentation of the SLA Geography and Map Division's honors award for outstanding achievement in map and geography librarianship to David K. Carrington, head, Technical Services Section, Geography and Map Division, Library of Congress. Also selected for an award for the outstanding display in the poster session was Cheryl Naslund, graduate student in library science at the University of Michigan.

Tuesday, June 8, the Geography and Map Division went by bus to the University of Michigan, Ann Arbor, where they were treated to an illustrated lecture by Richard Phillips entitled "Computer Graphics & Mapping." Following Dr. Phillips' speech, division members toured the Environmental Research Institute of Michigan, which is actively engaged in the preparation of maps based on Landsat space imagery.

Tuesday afternoon concluded with a wine-and-cheese open house for division members at the Map Collection, History & Travel Department, Detroit Public Library.

Wednesday, June 9, was devoted to a contributed papers session chaired by John Schroeder, Library of Congress Geography and Map Division. Presentations included "Design and Implementation of the Milwaukee Public Museum's Automated Map Catalog," Patricia Laughlin, Milwaukee Public Museum; "Geoscience Information Used in Offshore Exploration and Site Evaluation Studies," Janet Rudd, McClelland Engineers, Ventura, Calif.; and "DIDS: A De Facto National Atlas?," Mark Monmonier, Syracuse University. A subsection of contributed papers on remote sensing was chaired by Helen Jane Armstrong, University of Florida, Gainsville. Presentations included "Fundamentals of Remote Sensing" by David Lusch, Michigan State University, East Lansing, and "ULIC (University Landsat Imagery Consortium): History, Function and Future" by Larry Carver, University of California at Santa Barbara, and Chris Baruth, American Geographical Society, Milwaukee. In addition, Dr. Armstrong reported on the University of Florida's recent major acquisition of space imagery from the Kennedy Space Center.

The program concluded on Thursday, June 10, with a field trip sponsored jointly by the Geography and Map Division and the National Resources

Division. The trip began with a visit to the campus of the University of Windsor in Ontario, where the participants heard Elizabeth A. Snell, Lands Directorate, Ontario Region, Burlington, Ontario, discuss the "Canada Land Data System: Analysis for Canada Land Inventory." This was followed by a drive through western Essex County, Ontario, lunch at the Anderson Harbour Lite Tavern in Amherstburg, Ontario, and a tour of Fort Malden and the city of Amherstberg.

Richard W. Stephenson

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LIBRARY DEDICATION HONORS CARTOGRAPHER ROBINSON

Cartographers and geographers from the United States and Europe will join Walter Ristow, former chief of the Geography and Map Division of the Library of Congress, in honoring Emeritus Professor, Arthur Robinson, at the Thursday (Nov. 4) dedication of the Robinson Map Library at the University of Wisconsin-Madison in Madison.

Robinson, 67, retired Lawrence Martin professor of cartography, will be on hand for the ceremony. His wife, Mary Elizabeth Robinson, will unveil a portrait of her husband for display in the library.

The ceremony will be held at 3:30 p.m. at 180 Science Hall, followed by the library's official opening at 4:30 p.m. The new library will be open to the public weekdays from 8 a.m. until noon and from 1 p.m. until 5 p.m., according to librarian Mary Galneder.

Robinson was chief of the Map Division in the Office of Strategic Services (OSS) during World War II and an advisor to President Franklin D. Roosevelt during the "Big Three" conference at Malta.

After coming to the UW-Madison in 1946, Robinson served as president of the Association of American Geographers and of the International Cartographic Association. He chaired the Geography Department and was director of its Cartographic Laboratory. He retired in 1979. In 1981, he was awarded the International Cartographic Association's Carl Mannerfelt Medal.

With 4,500 square feet of floor space, the new library on the third floor of Science Hall has more than twice the area provided the university's map collection in its previous location in the south end of the building, said Galneder.

The library houses more than 200,000 maps and 135,000 air photos. The collection includes maps from the 1850s as well as space-age satellite photographs of the continental United States at a scale of 1:1,000,000.

With several meetings of geographers and cartographers taking place here around the time of the dedication, Galneder said, an international attendance is expected at the ceremony.

She said Ristow and Robinson were colleagues from 1974 to 1980 when the UW-Madison professor was cartography consultant to the Library of Congress. Ristow is a former La Crosse resident.

Mary Galneder

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MAP CATALOGUING WORKSHOP

A map cataloging workshop will be held in conjunction with the Spring 1983 meeting of the Western Association of Map Libraries, on April 21 and 22, 1983, at San Jose State University in San Jose, California.

On Thursdav afternoon, April 21, Gary Fitzpatrick of Washington, D.C., will give a presentation on the use of Dialog for on-line researching of map resources.

Friday, April 22, will be a full day of map cataloging instruction and practice conducted by Mary Larsgaard, map librarian at Colorado School of Mines and author of Map Librarianship. Access to both RLIN and OCLC will be available.

Participants in the workshop are requested to bring their own copy of Cartographic Materials: A Manual of Interpretation for AACR 2, 1983, available from American Library Association Publications in Chicago for $40.00.

The registration fee of $20.00 will include a natural-scale indicator and U.S.G.S. Miscellaneous Investigations Series I-1402, The Properties and Uses of Selected Map Projections. (If you already have a natural-scale indicator and U.S.G.S. I-1402, the registration fee is $15.00.) Please make your check payable to the Western Association of Map Libraries and indicate whether or not you will need materials to be provided. Remit to: Stan Stevens, University Library, University of California, Santa Cruz, CA 95064. Registration deadline is March 1, 1983. If you have further questions please contact: Donna Koepp, Government Publications Dept., Denver Public Library, 1357 Broadway, Denver, CO 80203 (303) 571-2130.

Donna Koepp
WAML Cataloging Committee
Denver Public Library

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A BOOK OF BASICS

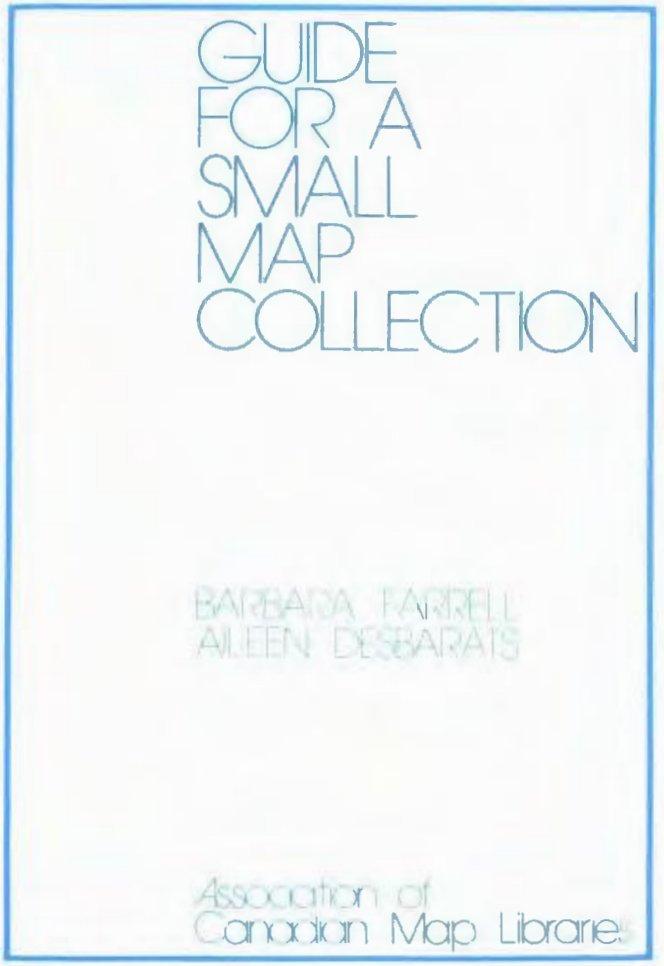
For Newcomers in Charge
of a Small Map Collection

Most members of the A.C.M.L. have at some point in their careers been approached by newcomers to the field in search of information and advice. Often, these newcomers have been given responsibility for a small map collection as but one aspect of their daily work, and they lack the training necessary to help them approach their task. The challenge to trained map librarians is to sift and select from their knowledge and experience just enough information and advice to get these newcomers started at a level of operation consistent with the needs of a small collection--but not to confuse them with too much detail.

In order to facilitate the passing on of this kind of information, the A.C.M.L. decided to produce and publish a guide containing much of the distilled wisdom of its members. Subjects dealt with include such basic issues as the nature of maps themselves, what makes them different from other library materials, and how they are acquired, stored, and used. The operation of a limited reference service is described and simple guidelines for the management of the collection are spelt out.

Copies of A Guide for Small Map Libraries are available at a cost of $12.50 from:

Association of Canadian Map Libraries
c/o National Map Collection
Public Archives of Canada
395 Wellington Street
Ottawa, Ontario K1A ON3



CARTES HISTORIQUES

94. Newfound land (John Mason) [1625].

95. British North America (J. Arrowsmith) 1854.

96. Railway Map of Alberta (Sam J. Gorman) 1916.

97. Pas-Kaart Vande Zee Kusten inde Boght van New Engeland (Johannes van Keulen) 1728.

98. ...Chart of Hudson's Bay & Straits, Baffin's Bay, Strait Davis & Labrador Coast &c. ...(C. Middleton) 1743.

99. A General Chart of the Island of Newfoundland with the Rocks & Soundings (T. Jefferys) 1775.

100. British America (J. & F. Tallis) [1851].

Price - $3 each. Order from:

PUBLICATIONS COMMITTEE (ACML)
c/o National Map Collection
Public Archives of Canada
395 Wellington Street
Ottawa, Ontario K1A 0N3

Coût - $3 par copie. Adresser vos demandes à:
COMITÉ DES PUBLICATIONS (ACC)
a/s Collection nationale de cartes et plans, Archives publiques du Canada 395 rue Wellington
Ottawa, Ontario K1A 0N3

HISTORICAL MAPS