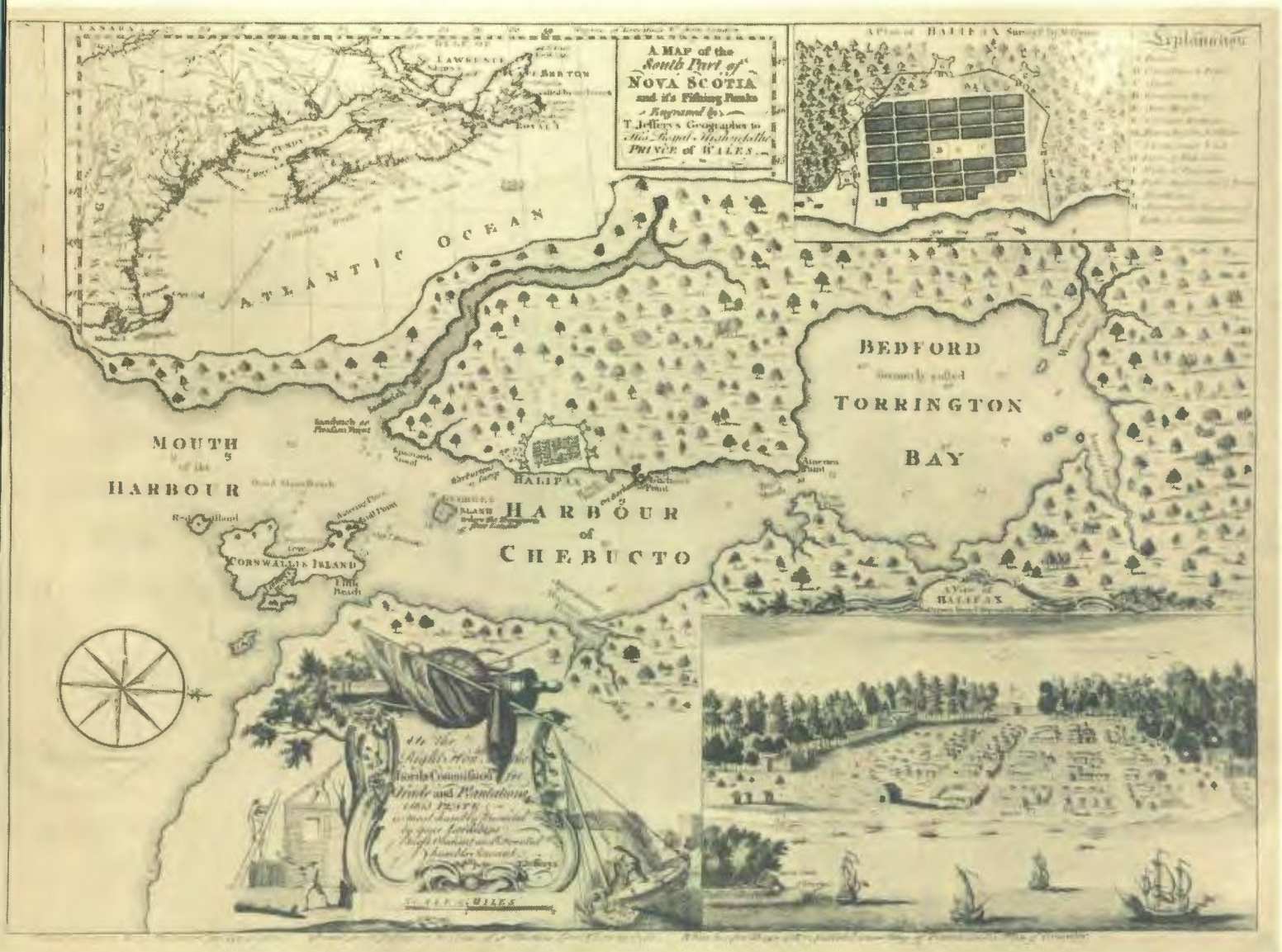
CIATION OF CANADIAN MAP LIBRARIES ASSOCIATION DES CARTOTHEQUES CANADIENNES

BULLETIN



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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)	$10.00
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ARTICLES may be sent to the editor, the contributing editors or the business address.

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ASSOCIATION DES CARTOTHEQUES CANADIENNES

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

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

CONTENTS/MATIÈRES

COVER: Thomas Jefferys, (Harbour of Chebucto), Published according to Act of Parliament Jan. 25, 1750. Printed for T. Jefferys at the corner of St. Martin's Lane, Charing Cross. Original in the National Map Collection, Public Archives of Canada.

The map has been reproduced in facsimile by the ACML and is available from the Association for $2.00.

ARTICLES

A GENERAL TOWN PLAN ACQUISITION POLICY FOR UNIVERSITY MAP COLLECTIONS WITH SPECIAL REFERENCE TO THE UNIVERSITY OF TORONTO MAP LIBRARY

Mary Armstrong
University of Toronto Map Library

Preface

How many map librarians have found it difficult if not impossible to work out a balanced and clear-cut policy for the acquisition of town plans? How often have we selected plans readily for cities we knew, and neglected those with which we are unfamiliar? How often have we had users come in and complain that we had no plan for some important town and we were unable to give a rational explanation (knowing that one was probably available)? This paper is an attempt to overcome this situation by producing a formula for selection that would work for major centres in most countries, states or provinces, and gives guidelines for selecting coverage for smaller places. To be truly useful, the formula should be implemented for all countries, etc. If any map librarian would like to help in this and/or to advise on modifications to the formula, either publish in the Bulletin or contact Mary Armstrong or Joan Winearls, at the University of Toronto Map Library.

Joan Winerals

Introduction

In many respects, developing an acquisition policy for a certain group of maps, is similar to developing a policy for most categories of material. The goals of the library or the larger institution, the needs of the patrons in the present and the future, monetary and spatial constraints, and the quantity and quality of material available, are all factors to be considered.

However, in developing a written acquisition policy for town plans, the most difficult problem is to identify valid criteria which will aid the librarian in:

1. determining how many town plans to acquire for each country and;
2. selecting, from all cities and towns in a given country, the ones for which town plans are most likely to be requested by Map Library patrons.

This paper will discuss the formulation of a written acquisition policy for town plans, in the University of Toronto Map Library (hereafter referred to as the Map Library), a research collection with over 140,000 maps. The factors discussed should be relevant to most map collections. The weighing of the factors will simply have to be modified to fit the needs of each library. The paper is divided into two parts:

A) the factors involved in formulating an acquisition policy for the Map Library: and as a result of this discussion, a written policy;
B) the policy will be applied to four "countries" or geographical areas to produce lists of town plans to collect for each.

A) Factors Governing Selection

A town plan shall refer to a large scale representation of any aspect(s) of a town in a spatial context. A town is any present or past grouping of habitats of people, from zero (ghost town) to many millions (Sao Paulo).

1. The patron

The Map Library is part of the Reference Department of the John P. Robarts Research Library. Undergraduates, graduate students and faculty are its formal patrons, but the Library also serves businessmen, civil servants, high school students and many other poeple who are not affiliated with the University. Therefore, patron demands require that the collection be international in scope and cover a broad range of topics. There is, of course, emphasis on Canadian maps, and maps on areas which are regularly being studied in university courses.

2. Space

Space constraints exist universally. As the Map Library could not collect and house every town plan, it is essential to establish which plans are most likely to be requested.

3. Cost and Availability

The cost of purchasing town plans in the Map Library is not great when compared to the cost of large series, such as geological or topograhical. A town plan can usually be purchased if a need for it is demonstrated. Although the cost of each town plan may be low, the selection and acquisition process is labour-intensive and considerably more costly than the actual item. The Map Library has also been very successful in soliciting free town plans from local planning officers all over Canada. Many Toronto maps have been received gratis as the Library provides a reference and research service which would otherwise have to be assumed by government agencies. In collecting town plans for other countries of the world, however, one must be aware that plans of many towns may not be available, especially in third world and communist countries.

4. Quality

The physical and intellectual quality of maps selected should also be considered. Maps should be produced on durable paper, so they do not tear with careful use, and the colour and printing should be clear and permanent. A general town plan should contain more than just the layout of streets and their names. Maps should be at a large enough scale that detail is clear and should include additional information such as important commercial and public buildings, parks and recreation areas, transportation routes, an inset of the city centre, and an index to named features. The exception to this is a very large scale base map on which users want to plot their own information.

5. Defining the Number of Town Plans to Select

It can be generalized that a town plan of a large city is more likely to be requested by a patron than that of a small urban area, because a larger city will usually have a greater number of researchable characteristics, being combinations of political, cultural, religious, market, industrial or administrative centres, for example. Population, therefore, can be a rough measure for determining the importance of a city. Table 1, compiled from the 1976 Rand McNally Commercial Atlas and Marketing Guide[1] foreign population tables, illustrates the great range in distribution of urban centres. Countries with fairly current (post 1960) city population statistics were chosen, to highlight diversity, and the metropolitan figures were used, whenever both a city and a metropolitan figure was given. It can be seen that the distribution of population in urban areas varies considerably between countries, and that urban distribution cannot be accurately predicted from total population. The population of East Germany (6) is about 7% higher than that of North Vietnam (7) but highly urbanized East Germany has at least three times as many cities over 10,000 as North Vietnam. Ghana (11) has approximately three times the population of Wales (16), but the number of centres over 10,000 is very similar. Thus, if a library collected town plans based on the total population of the country, one would collect the same number of plans for East Germany and North Vietnam, or for Bolivia (12) and Denmark (13); and one would collect far more town plans for Ghana than for Wales. However, if the number of cities for which town plans are acquired is based on the number of large cities, one can justify collecting many more town plans for East Germany than for North Vietnam, and at least as many town plans for Wales as for Ghana.

TABLE 1

No.	Countries	Total Population	Number of Large Cities With Population of 100,000	50,000-99,999	10,000-49,999	To be selected
1.	India	547,949,809	133	*	*	15
2.	Brazil	93,215,301	43	*	*	15
3.	France	52,540,400	34	*	*	20
4.	South Korea	31,469,132	16	11	10	15
5.	Zaire	23,563,000	10	1	5	7
6.	East Germany	16,951,251	12	16	*	15
7.	North Vietnam	15,916,955	2	1	14	3
8.	Hungary	10,427,800	6	11	17	12
9.	Chile	8,880,889	5	11	*	12
10.	Greece	8,768,641	3	3	*	6
11.	Ghana	8,559,913	3	3	11	5

12.	Bolivia	5,633,800	4	2	2	5
13.	Denmark	5,065,313	4	5	*	8
14.	Haiti	4,313,628	1		7	3
15.	Zambia	4,695,000	6	3	1	7
16.	Wales	2,765,000	3	3	14	6
17.	Albania	2,188,000	1	3	8	5
18.	Congo	1,089,300	2		2	4
19.	Botswana	574,094			6	4
20.	Gabon	500,000		1	1	2
21.	Belize	127,200			1	1
		A	B	C	D	E

*more than 20 cities in category

It is suggested that approximately 10 to 15 town plans of the larger cities could be collected for each country, with more plans chosen for highly urbanized countries with large populations, when there is demand by Map Library patrons, and fewer plans chosen under the opposite circumstances. Five to fifteen plans would provide Map Library patrons with a good cross section of town plans for most countries, and should be reasonable in terms of Map Library demand and the cost involved in acquiring the plans. Thus the following guidelines can be applied: if the number of cities over 50,000 is 15 or more (B+C)=15), town plans for about 15 of the largest centres should be acquired; if the number of cities over 50,000 is between 5 and 14 (5 (B+C) 14), between 5 and 10 town plans of the larger cities should be purchased; and for countries with fewer than 5 cities of more than 50,000 population, (B+C) 5), about 5 of the largest cities should be selected. According to these equations, 15 plans of the largest cities in India (1), Brazil (2), and East Germany (6), for example, should be collected. A larger number should be collected for France (3) because the country is studied extensively at the University of Toronto in many disciplines, and as a result there is great demand for town plans of France. More town plans of Denmark (13) than Zaire (5) may be collected, as there is generally more demand for European cities. Very few town plans would be purchased for countries such as Haiti (14) and Gabon (20), which have few towns with a population of more than 10,000.

Because there is very heavy demand for Canadian town plans, it is probably more realistic to treat each province as a 'country' for selection purposes. This criteria should also be applied to other large countries, such as the United States and Russia, if the library must collect considerably larger numbers of town plans, than would be recommended by the original guidelines. For Ontario, there is demand for town plans of communities as small as 500 people, and these should also be collected as time and budget permit.

In addition to plans of these large cities, representative small and medium sized centres should be collected.

6. Selecting Town Plans According to the Economic, Cultural or Physical Importance of a City

Town plans of specific cities may be requested because the city is being studied for a specific function or characteristic which it provides, or may have provided in the past. Current and historic town plans may both be collected for many cities. The pattern of the city should reflect the economic, social and physical structure of the city, as it has developed over time. A town plan may be chosen because of the following functions or characteristics:

Economic
- -capitals and other administrative centres
- -transportation centres, such as air, rail, road, or ports
- -towns with a predominance of industrial, wholesale, or retail activities
- -military towns
- -company towns
- -commuter towns
- -new towns or towns with special planning characteristics

Cultural
- -centres of religion
- -centres of ethnic groups
- -towns of historic or architectural significance, such as walled towns, towns dominated by cathedrals, etc.

Physical location
- -on a mountain
- -on an island
- -towns split by a river
- -towns around an oasis

Therefore, once the librarian has established the approximate number of plans of large cities to be collected, the above criteria can be very useful in determining for example the 15 cities, out of India's 133 cities over 100,000 for which the Map Library should have town plans. The factors could also be used in selecting important or representative smaller centres, if desired.

7. Updating

A selection policy must also state guidelines for updating material. In the Map Library, town plans of major international cities, and all large Canadian cities, should be updated at least every three years. Smaller cities would be updated less frequently, (every five years or less), depending on demand and availability.

8. Other Sources for Town Plans

Most topographic series at scales of 1:50,000 or larger, are sources for very simple town plans of the urban areas in a country. Post offices, schools, churches, and other buildings are differentiated for very small towns, and major street outlines and the built-up area for larger centres. Thus the town plans selected should contain additional information to justify their purchase. Atlases national, regional, and thematic, as well as monographs and newspapers, are alternate sources of town plans in a map library and should always be checked to avoid duplication.

These principles will now be applied to the selection of town plans for Alberta, France, South Africa and Texas.

B) A Discussion of Town Plans to be Selected

ALBERTA

Alberta, with a population of 1,838,037 (1976 Census of Canada) has a rapidly growing urban population. According to selection guidelines, it should be treated as a 'country', and both of its cities with a population over 50,000 (Calgary and Edmonton) should be selected and updated frequently. Grande-Prairie, Lethbridge, Medicine Hat and Red Deer are also important administrative, retail, wholesale and transport centres, and town plans of each should be acquired.

A representative selection of plans of smaller centres could include Vegreville (Ukranian) and Bonneyville (French), towns of variant ethnic origin, and Vermillion and Cardston with high Mennonite and Mormon populations, respectively.

Camrose and Wetaskiwin are medium-sized service centres; Banff and Jasper are tourist resorts; Vermillion is an agricultural centre on the Canadian National Railway line; and Fort McMurray is a historic fort and the last town on highway 63, gateway to the north-east hinterland of the province, as well as the newly-developing centre for oil sands exploitation.

The Atlas of Alberta[2] provides many plans of large and small settlements and ranches, and a series of plans depicting the development of certain centres from the early 1900's to date. Very small towns are adequately shown on the 1:50,000 National Topographic Series.

For research purposes, the Map Library would, over the years, request plans for centres of 2,000 population or over, from the local planning offices.

FRANCE

The Rand McNally Commercial Atlas and Marketing Guide, 1976[3], indicates that France has 34 urban centres with over 100,000 population. According to the selection policy, about 15 plans of larger centres should be selected, but as there is heavy demand in the Map Library for town plans of France, at least 20 town plans could be selected. The Grand Atlas de la France[4] defines 15 functional regions for France. Each region is centred on a city of 100,000+ and although the definition of functional is not given, the cities are diversified, being administrative, industrial, marketing, educational and transportation foci, for example, in each region. Bordeaux, Caen, Clermont, Dijon, Grenoble, Lille, Limoges, Lyon, Marseilles, Montpellier, Nancy, Nantes, Nice, Paris, Rennes, Rouen, St. Etienne and Toulouse should form the basis of the Map Library's collection of French town plans.

Many of these and other smaller centres have long urban traditions and early urban plans should be collected, as well. The above centres are also important for specific functions. For example, Paris (whose development has been highly controlled by the River Seine) is the nation's capital. Bordeaux is an inland port on Garonne River and a centre for the wine industry. Boulonge, centre for the fishing industry, and Marseilles, are also ports. Toulouse, on the Canal du Midi, is a transportation focus and renowned for its porcelain since the Middle Ages. Because France has so many cities, and the selection policy recommends the selection of about 20 large cities, only a few other are suggested. Strasbourg is an industrial centre. Versailles and Dunkerque are both historically important and Reims is noted for the production of fine liquors and its cathedral. Some smaller cities and towns of interest are Châtres and Aix-en-Provence, walled towns, Hyeres, a resort town, St. Malo, the port from which Jacques Cartier sailed to Canada, and Entreveaus, a small fortified village in the Swiss Alps. Bayonne-Biarritz-Anglet is a fast growing industrial and service agglomeration on the North shore.

For France, there are many alternate sources for town plans, both current and retrospective. Atlas des Villes Medievales d'Alsace[5] presents town plans for 71 villages showing the location, name and date of origin of important buildings, boundaries and fortifications, roads etc. Atlas Historique de la France Contemporaire[6] has only a few town plans but it does indicate what towns have historical importance which is an aid to retrospective collection development.

Town plans of many medium to small size cities are found in the Index-Atlas des Départments Francais? Capitals of 90 departments are illustrated; names and location of streets, major buildings, recreation areas, waterways, etc. are indicated. Loan, Foix, Rodez, Auch, Orleans and Evry are shown, for example.

The Atlas de Paris et de la Régione Parisienne[8], published in 1967, is a detailed general and thematic atlas of the city.

It is doubtful if the library can afford to update all cities of 100,000+ every five years. Updating must be based on user demands and the availability of town plans.

SOUTH AFRICA

According to the 1970 census, the population of the four provinces of South Africa totalled 21,402,470. South Africa had 19 cities at that time with over 100,000 population but nine of these are suburbs of the metropolitan areas of Bloemfontein, Cape Town, Durban, East London, Johannesburg, Kimiging. The South African Development Atlas[9] indicates that Johannesburg, the financial and cultural centre, was founded in 1886; Pretoria is the administrative capital and educational centre; Durban is the major port; Cape Town is the legislative capital; and Kimberley is the centre of the diamond mining industry. Town plans of all the above should be collected, and updated every five years.

As there is little demand for plans of smaller centres, a limited number should be acquired. Kurman and Rustenburg are mining towns. Messina is a northern transportation centre, and Port Noleth and Mosselbani are important fishing ports.

TEXAS

Because of the demand for town plans of the United States, Texas may be treated as a country, with 14 cities of over 100,000. These would include Austin, the capital, and main administrative centre, Houston and Dallas/Fort Worth, diversified manufacturing and retail centres and important transportation foci, Corpus Christi, the largest retail centre in the south, and Lubbock and Amarillo, commercial cities in the north-west. These cities, as well as Arlington, Beaumont, El Paso, Garland, Irving, Pasadena, and San Antonio are all diversified functionally and a town plan of each should be collected.

Other cities of specific functional or geographical importance are Galveston, a port situated on a spit in the Gulf of Mexico, and Laredo, a city on the Mexican border. The acquisition of plans of several large ranches would also be of interest.

The Rand McNally Pioneer Atlas of the American West[10] notes that many of the urban areas are quite old and of varying ethnic origins. For example, historical and current town plans of Nacogdoches founded in 1779 by Spanish settlers, and New Braunfels founded in 1845 by German settlers could be collected. A historic town plan of the Alamo (San Antonio de Valero) would also be valuable.

Many Texas cities have shown extremely rapid growth over the last fifty years. Historical plans of Odessa, Lubbock and Pasadena would be excellent accounts of the process of urbanization of the state.

The United States Geological Survey Topographic maps provide simple town plans for other cities, and Texas road maps, which contain many insets for town plans, are also good alternate sources for these maps.

The cities discussed present a cross section of urban Texas. Updating of the city plans would be done approximately every five years.

Footnotes

1. Commercial Atlas and Marketing Guide, (Chicago: Rand McNally, 1976).

2. Atlas of Alberta (by) Government of Alberta and the University of Alberta, (Edmonton: University of Alberta Press, 1969).

3. Commercial Atlas and Marketing Guide, (Chicago: Rand McNally, 1976).

4. Grand Atlas de la France, (Paris: Selection du Reader's Digest, S.A.R.L., 1969).

5. Francois J. Himly, Atlas des Villes Medievales d'Alsace, (Strasbourg: Federation des Sociétés d'Histoire et d'Archéologie d'Alsace, 1970).

6. Atlas Historique de la France Contemporaine, 1800-1965, (Paris: A. Colin, 1966).

7. Index-Atlas des Départments Francais, (Rennes: Oberthur, 1966).

8. Jacqueline Beaujeu-Garnier, Atlas de Paris et de la Région Parisienne, (Paris: Editions Berger-Levrault, 1967).

9. Ontwikkelingsatlas: Development Atlas, (Pretoria: South Africa Department of Planning, 1966-).

10. Rand McNally's Pioneer Atlas of the American West, (Chicago: Rand McNally, 1969).

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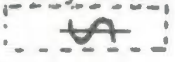
CHARTING BY THE CANADIAN HYDROGRAPHIC SERVICE

R.W. Sandilands
Pacific Geoscience Centre
Patricia Bay, B.C.

Those of you who deal with hydrographic charts no doubt have noticed quite a few differences in our products in the last year or two. The main differences have been brought about by the Federal Government policies on metrication and bilingual publication.

As new charts are printed, the switch is being made. Reprints are still unilingual and in fathoms and feet, or feet only. Initially the changeover was seen as being a block change so that, for example, a mariner entering Canadian waters from overseas whould arrive in the Strait of Juan de Fuca and use metric charts right through to Vancouver. However, the funds and the man-years were not made available and so a piece-meal change is being made. The route mentioned as an example has top priority on this coast and should be completed by 1982. To emphasize which charts are metric there is a large "METRIC" printed on all borders, as well as the note that depths are in metres in the normal place in the chart title.

One of the main differences brought about by the bilingual format is the extra space now required for chart titles, an internal problem in the main which causes headaches when land masses - the traditional location for titles - are small. Another difference is one which is more likely to affect you and your chart users, and that is the increased use of symbols. Rather than print a short description of a feature - for example, 'anchorage prohibited': 'Mouillage intredit' - a symbol  the anchorage symbol with an X and the extent of the area  neatly gives the necessary information. In the same manner, 'Spoil Ground': 'Depot de deblais', becomes 

It is essential that you have a copy of the booklet which has replaced chart number 1, but which retains the chart number. This gives all the new symbols and also the old ones still found in print. For example, the various dots which showed 'foreshore as mud' or 'sand' or 'shingle' show these symbols plus the new ones where the nature of the foreshore is only given by a letter or combination of letters. Frequently where no symbol is available an abbreviation has been used so that the letters are common to both official languages - for example MON for 'monument'; DM for 'dome'; RU for 'ruins' and so on. The symbols found on this chart are numbered in accordance with the International Hydrographic Organization Standard List of Symbols and Canada has made a strenuous effort to internationalize her chart symbols.

The chart size is being standardized to A-O size. At present this can lead to larger margins, as, for example, on chart 3473. As new surveys of a suitable scale are made the limits of the charted area may be extended to fill more of the sheet.

Some of you may wonder what is so difficult about producing a metric version of a chart. Just pull out your conversion tables and where the old chart showed 22 fathoms put down 40m; where it showed 55 fathoms put down 101 metres and so on. However go back a step in the compilation process. In the fathoms format contours were shown for 1; 3; 6; 10; 20 etc. so these depths were not printed but deduced. On translation, new contours are required and a new sounding selection has to be made to complement the contours. Also a new format has been developed where fewer soundings are shown and greater emphasis placed on the contours. In the old chart format fathom lines were symbolized - dot, dashes - but on the new they are all clear lines marked with indicators which appear not more than 10 centimetres and not less than 6 centimetres apart. The contour spacing is 2, 5, 10, and every 10 to 100 metres; in 20 metre intervals to 200 metres; in 100 metre intervals to 1000; then by thousands. However additional contours may be added or contours may be dropped depending on the scale and on the complexity of the seabed configuration.

Land contours are a problem as in most areas we do not have metrically contoured maps. Generally we follow a hundred foot contour and call it a 30 metre contour interval, but the contours shown depend on the maps available and the interval is dictated by the steepness of the terrain, the contour separation may be as much as 300 metres, or approximately 1000 feet, in some steep-sided inlets.

Two examples are the new charts 3473 of Active and Porlier Passes and 3455 of Sidney to Swartz Bay. The latter is a hand drawn chart, whereas the former is the first computerized chart.

In both cases the compilation process is the same. However after that stage Active Pass is entirely a computerized product with the exception of the title and names. A separate computer program has been developed for each step in the chart production. The graduation and border are drawn. These are standardized. The cursor is then zeroed - usually on the lower right corner. The coastline is then slowly followed and digitized to a tape. Similarly, the low water is followed as a clear line. Too rapid a movement of the cursor for the digitizer to follow rings an alarm on the system. Contours are then programmed in unbroken lines with a heavier weight line at the 10, 50, 100 metres.

Next follows the sounding selection. Here the cursor is placed over the selected sounding and an X and Y co-ordinate are read onto tape. The actual value of the sounding is recorded through a keyboard and the cursor makes a small tick over the sounding to inform the compiler which soundings he has selected. Similarly, all symbols have a code number and their program consists of placing the cursor over the symbol position, locating them by X and Y co-ordinates, and then typing in the symbol identifier.

The time taken to produce this first effort is certainly no less than by the more conventional methods, the big advantage lies in the downstream benefits when, for example, an alteration in scale is needed.

At present, visually, the effect is of a heavier chart - a strictly utilitarian product, lacking the finer individual touches of a professional cartographer with a love of his job. Particularly noticeable is the standardized rocky fringe and the low water detail which to my old-fashioned eyes were the joys of a well-drawn chart. As with

any prototype we can see flaws in the product. Standing Orders for compilation that were evolved to make the transition to a computer-compatible program are not perfect for all cases and will have to undergo a modification as we learn by experience.

There is a move afoot to do away with chart corrections in-house before sales to agents. This is a costly and man-year consuming process which, unless you actually purchase from our office, does not relieve the purchaser of bringing the chart up to date but only reduces the number of corrections that he may have to make. The U.S. authorities have done away with this correction system and it may well come to be that the mariner may have to do his own corrections to keep chart prices reasonable.

In conclusion, we have made two extensions of coverage in our small-craft guides on this coast in the most recent editions. Volume I now covers from Port Alberni to Campbell River including the Gulf Islands - an extension from Port Alberni to Sooke and Nanaimo to Campbell River Volume II covers from Boundary Bay to Desolation Sound - an extension from the previous termination at Cortez Island.

New chart catalogues are now available and four of them cover the country Pacific Coast, Great Lakes, Atlantic Coast and the Arctic.

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BRITISH COLUMBIA
MINISTRY OF THE ENVIRONMENT
SURVEYS AND MAPPING BRANCH
PRODUCTS AND PROGRAMS

D.F. Pearson, Research Officer,
Ministry of the Environment,
Victoria, B.C.

Products and Services

The Surveys and Mapping Branch, Ministry of the Environment, is the Provincial agency responsible for establishing survey control for mapping. Survey control consists of approximately 40,000 ground points throughout the province tied to a horizontal and/or vertical grid. All mapping is referenced to this grid of control points. In addition, the Branch produces series maps in lithographic, orthophoto or diazo line-print format and prepares site specific projects mapping either as orthophoto or line print. Series maps conform to an established system of standard scales, base detail, compilation and display, and sheet numbering. Individual series sheets form part of an overall block or module and are normally keyed to the National Topographic System, or, in the case of large scale sheets greater than 1:25 000, to the B. C. Geographic or B. C. Rectangular System. Project mapping, on the other hand, is concerned with site-specific projects such as hydro-electric reservoirs or highway rights of way. Although designed to satisfy a single need, large-scale project mapping has also often benefitted other users.

The Provincial aerial photographic program for such diverse purposes as mapping, resource inventory, or pollution control is also the responsibility of the Branch. Photo scales generally range from 1:10 000 to 1:50 000 and flight line index maps are available in the form of paper prints or as 35 mm aperture cards suitable for reader viewers. The latter system is both an inexpensive and compact method of storage. We also offer a viewing service for Federal air photography covering British Columbia, the Yukon and Northwest Territories. Each photo frame is reduced to a 16 mm film negative, with 2,500 frames (or about 10 rolls of film) to each cartridge. A motor-driven microfilm reader is used for viewing. When he has viewed the desired photos, the customer may order them from the National Air Photo Library in Ottawa.

The Surveys and Mapping Branch publishes an annual Map and Air Photo Catalogue which is widely distributed to regular users including university map libraries, reference libraries and larger municipal libraries. Complementing the catalogue is the Quarterly Summary of New and Revision Mapping and Air Photography. It lists newly-completed projects by name, number or title, scale, number of sheets or photos, and edition if applicable.

Discounts of fifty percent are offered on Provincially-produced maps and air photos requisitioned by educational institutions for classroom and student use. Another service of interest to educators is provision of 105 mm negatives or photo - process prints of earlier editions of most Provincial maps of the old Pre-emptor, Degree or Topographical Series. The 105 mm negatives are suitable for display in a reader viewer, preferably one with an enlarging capability. Alternatively, the maps may be reproduced photographically in black and white to original size and scale. Costs are relatively high, approximately $2.50 per square foot, less educational discount, but the detail is quite crisp. Of course, colours lose some interpretive qualities when appearing as tones of grey.

There is no free distribution list for maps and air photos. Map libraries wishing to keep abreast of current progress in mapping and photography should review the Map and Air Photo Catalogue and the Quarterly Summary. There is no charge for the Catalogue, individual keys, or the Quarterly Summary.

New Mapping, Short and Long Range Programs

In response to recent recommendations by small-scale map users, the Provincial 1:125 000 series is being regnerated at 1:100 000 scale. Style and content will remain basically unchanged, though detail will be expanded in keeping with the 25 per cent scale enlargement. Sheet numbering and indexing will be the same as that already in use for the 1:125 000 maps.

The 1:100 000 series is also being expanded to replace 1:250 000 coverage in parts of the province where the complexity of land status and density of settlement have grown to proportions beyond what can be conveniently displayed at the smaller scale. Areas where 1:250 000 mapping has been recently replaced by larger scale sheets include National Topographic block 92F on Vancouver Island, 92P in the southern Cariboo and 93G around Prince George. Plans are being made to fill in the gap between Prince George and Williams Lake. Expanded coverage by the province at 1:100 000 will also be continued in the northern part of British Columbia in order to extend availability of land status data in lithographed form in that part of the Province.

The series of Provincial Park maps, currently available mainly as black and white prints, is to be converted to the lithographed format and will be extended to cover all major parks. The Mount Robson Provincial Park map combines contours and relief shading, which highlight the spectacular physiographic detail of the area.

At present, the Special Geographic series consists of a single mapsheet, SGS 1 (Vancouver Island). Work is underway to cover the Vancouver - Kamloops and Okanagan - Kootenay regions. At 1:400 000 scale, this special series offers a range of detail intermediate between the 1:600 000 and 1:100 000 series sheets. Like SGS 1, the other special geographic maps will contain historical notations, border decoration, shaded relief, and layer tinting.

Two new regional maps are in production. Parksville - Tofino at 1:125 000 scale embraces parts of four National Topographic sheets in the mid-Island belt. It is designed to include all the popular recreational country between Pacific Rim National Park and Parksville - Qualicum and will carry some notations of historical and geographical interest. The second sheet of the regional series focuses on the old Peace River Block, lapping into National Topographic blocks 94A and parts of 93O, 93P and 94B. Covering the most heavily settled parts of the Peace River region, it will be at a scale of 1:250 000.

As the result of adoption of the Standard System of Mapping in 1976, the province is committed to rationalization of map scales for series production. The system introduces common scales, border detail, map grid and numbering systems and is particularly amenable to metric conversion. When universally applied, it will permit the free exchange of maps and map data between agencies and will enable the comparison and correlation of different mapping themes by the simple overlay process. The Standard System places special emphasis on scales larger than 1:25 000 and introduces a rational numbering system called the British Columbia Geographic System (B.C.G.S.) with a further option of the B. C. Rectangular System (B.C.R.S.) for the largest scales. The system is explained in detail in the booklet "British Columbia Standard System of Mapping". Among the agencies currently engaged in requests for conversion of a myriad of existing unkeyed large-scale maps to the standard system is the Planning Services Division of the Ministry of Municipal Affairs and Housing, which is mainly interested in getting old municipal maps at 1 inch to 200 feet (1:2 400) and 1 inch to 400 feet (1:4 800) converted to 1:2 500 and 1:5 000 scales. The B. C. Assessment Authority is also actively supporting the move to 1:2 500 and 1:5 000 series mapping for purposes of plotting cadastral detail, i.e. lots and subdivision plans from Land Registry Office plans.

Orthophoto mapping is developing into a major alternative to traditional line mapping. An orthophoto is an air photo or series of photos geometrically corrected to remove scale distortion so that distances and contours, lot lines and place names, may be plotted or drawn as separate overlays. Scales used in orthophoto-graphy range from 1:2 500 upwards to the old scale of the photos themselves, but most commonly orthophotos are generated at 1:2 500, 1:5 000 and 1:10 000. They may be produced as part of a series or to fill project requirements such as route planning for the Ministry of Highways or floodplain mapping for the Water Investigations Branch.

In 1977 the Surveys and Mapping Branch conducted a questionnaire survey of map users in the public and private sectors. Questions were related to the kinds and frequency of uses, map data preferences and the customers' knowledge and use of map content. A space for general comments was made available for feed-back not directly covered by the questions themselves. Recreational activities (camping, hunting, fishing, mountaineering, etc.) account for more than half the users. Reference to land status (lots, ownership, administrative boundaries) was of next highest importance. Educational/teaching and economic uses such as planning or real estate each accounted for about 10 per cent of the total. Frequency of use tended to more often daily or weekly than monthly or annually. Though a majority of customers felt that maps were sufficiently up-to-date, there was a significant expression of a need for more frequent updating. The most referred to element on maps is access, i.e. roads and trails, followed by drainage, relief and names. Details of land status and buildings ranked lower than the other elements.

This brief description of current activities and short and long range programming and planning in the Provincial Surveys and Mapping Branch has been in the form of a selective outline of programs and services which may be of special interest to map libraries. No attempt has been made to cover all the work which is done. However, this outline should provide the basis for a broader knowledge of our services.

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MAPPING IN THE BRITISH COLUMBIA MINISTRY OF FORESTS

C.J. Calder,
British Columbia Forest Service,
Victoria.

Maps are one of the most important aids available to forest managers. Thematic mapping is conducted by most departments within the Ministry of Forests.

I will outline briefly the function of each group in the Ministry which is involved in mapping, and describe the type of mapping which they produce.

Administration Division

The Administration Division of the Ministry of Forests provides professional and technical guidance to the forest districts and performs an administrative function in all matters pertaining to timber harvesting. To aid in this matter, the Administration Division draughting section produces maps of timber sales, logging inspections and project drawings. An atlas of Legal Status Reference Maps is also maintained on which is plotted leases, licences, timber sales and sales of Crown land, plus easements, reserves and administrative boundaries. The base maps and land ownership details for this atlas are provided by the Ministry of Environment. The scale of the reference maps varies from 1:20 000 to 1:63 360 and 750 maps are required to cover the Province.

Engineering Division

The Engineering Division's role is to provide engineering expertise, direction and support to the other Forest Ministry divisions and districts. In terms of mapping, this Division mainly uses existing maps for their various transportation and pondage-clearing studies. However, some original map draughting is done by Divisional draughtsmen in conjunction with engineering studies related to road surveys, bridge sites and building sites.

Forest Valuation Division

The Forest Valuation Division is responsible for the quantification and appraisal of forest values. Most of the mapping by this Division is done on existing maps, however, some original map draughting is done by the district draughting offices in conjunction with the cruising of timber sale cutting permits and salvage sales.

Information Division

The function of the Information Division is to provide information on the activities of the Ministry of Forests and the policies and principles within which forest land is managed in British Columbia.

Two types of information are provided in map form, fire closure zone maps and recreation site maps. The former outline areas which may be closed for woods activity because of high fire hazard. The latter are available at various scales and they show the access to and amenities which exist at the various Ministry of Forest recreation areas, including campsites, boat launching ramps and hiking trails. These recreation maps are distributed at the local level by the forest ranger staff.

Protection Division

The role of the Protection Division is to establish and maintain an efficient fire and pest control organization, provide leadership in the wise use of fire as a resource management tool and establish and maintain pest management systems in British Columbia. Three main types of mapping are conducted by this Division: firstly, forest rangers submit a fire report and location map for each fire; secondly, 10 mile to-the-inch gridded maps have been prepared to assist air observers in fire location; and thirdly, a Provincial fire map atlas is maintained. The fire atlas consists of a complete set of 2 mile to-the-inch base maps with four transparent overlays showing:

1. Forest fire lookout visibility coverage.
2. The fire number which has been assigned to each fire.
3. Fire boundaries of the larger fires and year of burn color coded by decade for all fires.
4. Fire size by coded symbol and fire cause by color code.

Range Division

The role of the Range Division is to manage the uses of the Crown range resource so as to ensure sustained forage yield and compatibility with other land uses and social requirements. The Range Division conducts grazing inventory surveys and prepares range maps. A variety of scales and sizes of maps have been produced and prints are obtainable by range users from film positives located in the Williams Lake District office. The Range Division are currently studying the possibilities of up-dating their range maps with the aid of satellite imagery.

Reforestation Division

The Reforestation Division is responsible for the reproduction, establishment and development of the Crown forests in British Columbia. The Division does not conduct any major mapping program in its Victoria headquarters. However, it has developed the history card record and district history mapping systems which are used to record reforestation activities. The regionally located history maps, using forest cover maps as a base, show the stand treatments (re-habilitation and planting) which have been conducted on distrubed areas.

Research Division

The Research Division of the Ministry of Forests conducts problem analyses and enquiries of an original and scientific nature pertaining to the forest resource.

Mapping in the Research Division is mainly limited to the maintenance of maps for such purposes as the location of sampling plots. However, research is now being conducted on site ecology mapping. In this regard, bio-geoclimatic sub-zone maps at a scale of 1:500 000 are being produced to portray the first stratification of the landscape within which site ecology descriptions will be prepared.

Resource Planning Division

The Resource Planning Division is responsible for the maintenance of the forest land base and for planning its use in accordance with its characteristics and capabilities in response to social and economic demands. To assist in the accomplishment of this work, three types of mapping have been developed. Firstly, the forest districts maintain a set of two or four mile to-the-inch maps which display the existing and proposed resource development plans in regard to recreation sites, visual management zones and resource folios.

Secondly, the Resource Planning Division uses existing 1:1 000 000 scale key maps to co-ordinate and monitor resource development. Thirdly, the Resource Planning Division has co-ordinated the development and application of a service-wide folio mapping system which uses existing maps of a similar scale to assist in the adjudication of all applications for land use in the area covered by the folio. Originally, each map in the folio was printed on transparent material for overlay purposes. Because of difficulty in seeing through several overlays, the procedure has been changed and a white print is now prepared for each map and only the development plan outline is printed on a transparency. There are seven basic maps in a folio, to display:

1. Forest cover and disturbance history.
2. Landforms and soils.
3. Fisheries and watersheds.
4. Wildlife guide areas and traplines.
5. Recreation and cultural resources.
6. Agriculture and domestic range.
7. Topography.

To date, approximately 100 folios have been prepared and another 500 are in various stages of preparation. Three copies of each folio are prepared for use by the logging company, the district office and the local forest ranger.

Special Studies Division

The function of the Special Studies Division is to undertake specialized studies, provide specialist input as required, assist in planning and decision making in systems development, financial analysis, economics and resource management. The Divisional staff are map users rather than map makers, however, when suitable maps are not available for their studies, they have them made by outside sources. Such is the case with the orthophoto mapping on Vancouver Island which has been prepared by the Ministry of Environment for the Special Studies Division.

Training School

The Training School is responsible for the development and maintenance of an effective program of staff training and development. Maps are used extensively as training aids at the school. For example, classes in resource planning prepare map folios of study areas to demonstrate the effectiveness of maps as aids in making land use decisions.

Inventory Division

The Inventory Division is responsible for conducting and maintaining the inventory of the forest resource on all Crown lands in the Province and for providing the leadership role in the inventory field.

The Inventory Division is the main map making agency in the Ministry of Forests, a staff of twenty-five draughtsmen produce or revise an average of 500 to 600 forest cover maps each year. Since 1961, a total of 7300 unit survey maps have been produced covering the entire Province at a scale of 1:15 840 (7 1/2' x 7 1/2' size) and 1:31 680 (15' x 15' size).

A forest cover map displays the usual planimetric and cadastral base map detail, delineates the location of the various forest type boundaries and describes the tree species, age, height, stocking and site class attributes, associated with each forest type. The preparation of a forest cover map consists of plotting or transferring forest cover details from typed vertical air photographs onto mylar copies of base maps which have been supplied by the Ministry of Environment.

In 1976, the Inventory Division converted to metric measure for its field surveys, mapping and compilation. At present, vertical air photos at a scale of 1:20 000 are spotted on existing 20 chain (1:15 840) national topographic series forest cover maps and final draughted maps are photo reduced to a scale of 1:20 000 for presentation purposes. In the future, the Ministry of Environment may produce a new UTM base map series at a scale of 1:20 000 (6' x 12' size) for use by all resource departments.

In 1977, the Ministry of Forests developed five standard planning levels for resource development:

Level 1 - Provincial Planning: maps and photos at 1:50 000.
Level 2 - Regional Planning: maps and photos at 1:50 000.
Level 3 - Unit Planning: maps and photos at 1:20 000.
Level 4 - Sub-Unit Planning: maps and photos at 1:10 000.
Level 5 - Operational Planning: maps and photos at 1:10 000.

From a forest inventory viewpoint, the first three levels can be satisfied by up-dating and manipulating existing maps and statistics using Forest District input, high-level photography and satellite imagery. The other planning levels will require new inventory packages which are presently being developed.

The Inventory Division will be up-grading its mapping and compilation facilities in June of this year when an I.G.D.S. (Interactive Graphics Design System, M & S Computing, Inc., Huntsville, Alabama) computerized mapping system is installed. This system, which is based on the storage and manipulation of digitized map data, will eventually provide a geographically referenced data base and an automated mapping capability.

In conclusion, I hope that this brief outline has given you some insight into the various sections of the Provincial Ministry of Forests and an overview of how maps of one type of another are used by these sections as aids in carrying out their various functions.

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BRITISH COLUMBIA
MINISTRY OF THE ENVIRONMENT,
RESOURCE ANALYSIS BRANCH

R.H. Reid
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As a representative from a Cartographic Section, my discussion will include Thematic Mapping and recent mapping trends of the Resource Analysis Branch (RAB). Many of you have received a copy of our new Catalogue; however, I will expand on its content and use later in this paper.

History of Rab Mapping

The Resource Analysis Branch developed from the Federal-Provincial Agriculture and Rural Development Act (A.R.D.A.) in 1964. Provincially administered by the British Columbia Department of Agriculture, A.R.D.A. then became the Canada Land Inventory (C.L.I.) and later the British Columbia Land Inventory (B.C.L.I.).

In the early years, 1964 to 1972, C.L.I. was primarily involved in the collection and mapping of capability information for Agriculture, Forestry, Recreation, Ungulates, Waterfowl and Present Land Use, to support a national mapping program. These first five basic topics were compared and analysed to prepare Land Capability Analysis (L.C.A.) maps. The L.C.A. maps were pioneered in British

Columbia and later applied to other provinces. The intent was to produce a set of single-purpose maps to assist regional resource management decisions. All six types of C.L.I. maps are published in Ottawa; at present there are 219 multi-coloured published maps of British Columbia. Supplemental baseline inventories were conducted for Soils, Landforms and Climate.

During the period 1972 to 1974, B.C.L.I. became more involved in folio mapping where a number of new interpretative maps could be assembled with the common C.L.I. baseline inventories. Input from other Departments was also incorporated and the product was designed to assist regional resource managers and planners in making specific land use decisions or trade-offs. Our folios were some of the first ever assembled by a British Columbia Resource Ministry for land use planning. Forest Service, Land Management Branch and many other agencies now use this concept extensively.

In 1974 the British Columbia Land Inventory was re-named the Resource Analysis Unit of the ELUC Secretariat and was moved to become a branch within the Ministry of the Environment in 1977. More baseline inventories were developed since then, specifically in Aquatics, Surficial Geology or Terrain, Vegetation, Wildlife and Visual Analysis.

Structure of the Resource Analysis Branch

The RAB is a multi-disciplinary group of professional and technical personnel which undertakes inventories and interpretations of natural landscape features related to the ecological framework of the environment. It is the designated provincial agency for soil survey, surficial geology inventory, climate survey, vegetation survey and aquatic system habitat mapping. The Branch comprises surficial geologists, hydrologists, climatologists, foresters, fisheries biologists, soil scientists, plant ecologists, outdoor recreation specialists, landscape architects, wildlife biologists and resource geographers, as well as a support staff of technical, laboratory, computer and clerical personnel. In addition to developing resource capability maps, the Branch also undertakes ecological analyses of environmental impacts associated with major development projects. All the basic field data collected by the staff is presented in the form of maps, data cards and reports, or it is put into computer storage. The data can then be analysed and manipulated so that a variety of interpretative maps may be produced.

Presentation/Compilation Section

I am responsible for the administration of the Presentation/Compilation Section of our Branch. The Section is subdivided into three components, namely, Cartography, Map Library and Data Processing. All components are closely interlinked, as are the other Sections within the Branch.

Cartography

The Cartographic Unit is a group of twenty-one draftsmen supervised by Loyd Houston. The unit is composed of three parts, or working teams, two of which are located in Victoria, with the remaining one in Kelowna. The first team has been involved primarily with Northeast Coal inventories and reports during the last year. It handles all requests for report graphics as well as large and small scale mapping requirements related to long term mapping projects. The second team predominately concentrates on baseline inventory mapping, large scale folio presentations

and short term projects requiring a quick turn-around. The third team is located in Kelowna; its main function is Soils, Terrain and Vegetation mapping, as it includes the largest contingent of RAB professionals for these disciplines. Any derivative mapping, such as capbility for Agriculture or Forestry, is also carried out by the Kelowna team.

In 1977 the Cartographic Unit drafted 550 thematic maps and produced an extensive amount of graphics to support thirty-five reports published by the Branch. Topographic bases, mosaics and orthophotos were provided by the Map Production Division. One hundred and five additional preliminary thematic maps were plotted from air photographs and will be finalized this year.

Examples of RAB baseline and interpretive mapping are contained in our recent Bullmoose Creek folio, being prepared for the Prince George Regional Resource Management Committee. Input is as follows:

A. Baseline Inventories consisting of:

1. Soils
2. Terrain
3. Aquatics
4. Recreation
5. Climate
6. Vegetation

B. Derivative Mapping consisting of:

Examples such as agriculture capability, erosion and flooding hazards, depth to bedrock, etc. The full list of 17 interpretations is shown in Table 1 of this paper.

TABLE 1

A. Baseline Inventories

1. Biophysical Soils
2. Terrain or Landforms
3. Aquatic Biophysical
4. Recreation Features
5. Climate Stations
6. Present Vegetation

B. Derivative Mapping (Interpretations from Baseline Inventories)

7. Agriculture Capability
8. Forest Capability
9. Visual Analysis
10. Ungulate Biophysical
11. Recreation Carrying Capacity
12. Present Land Use
13. Soil Interpretations for Erosion, Hazard, Flooding and Engineering Suitability
14. Soil Wetness
15. Terrain Sensitivity (avalanching, gullying, failing slopes, etc.)
16. Vegetation Sensitivity
17. Stream Reach Evaluation

When combined with the topographic base, this 1:50 000 folio contains eighteen colour diazo inputs that can be assembled in any combination relating to the users request or resource problem. Mapping aids, such as this folio, offer planners an excellent tool for decision making. The data serves most effectively to help define multiple resource use objectives for the area, and to identify major constraints and potential conflict areas. Preparation of the folio also prompts other resource agencies to bring forward their information to enhance its content.

Map Library

The Map Library is the storage and distribution center for all RAB maps, publications, air photos and support literature. It contains approxiamtely 20,000 different maps, 2,500 publications, reports and books and 70,000 air photographs. Access to an additional 150,000 photographs is available.

Our Librarian is Karen Gorse and the Library is located in Room 48, 839 Academy Close, Victoria, B.C. Numerous index maps and lists are available at the counter for reference to regular RAB inventories, folios and special projects. Mary Redmond is our Remote Sensing Co-ordinator.

The Library distributed over 27,000 maps and publications last year. Requests for data were received from numerous provincial ministries, regional districts, federal and municipal governments, educational institutes, consultants, private interest groups and the general public.

Many maps, publications and mailing lists are being converted to microfilm and computer data banks for easier access, duplication and distribution of the information.

Our new catalogue describes all maps, publications and studies undertaken by the Resource Analysis Branch. This publication is one of the finest, most interesting documents that we have produced. The majority of our maps shown in the catalogue are in manuscript form which makes them easy to reproduce as black and white ozalid prints. Some are published or lithographed in full colour. Index maps for each theme indicate availability. Whenever published maps are shown in the Catalogue, manuscript maps are also available for the same areas, generally at a larger scale. Copies of our maps are mailed from the Library; our distribution figures often exceed 20,000 maps each month.

We encourage you to visit our Library where we have an abundance of interesting reference material.

Map Presentation and Standard Scales

With our thirteen years of mapping experience, we are young and relatively flexible compared to other government mapping agencies; we have tended to provide a lead on scales, map presentation and classification schemes. Our choice of mapping and presentation scales has had an impact on all resource agencies. Similarly, a number of the classification schemes that we have developed have been adopted by other agencies. For example, our Aquatic Systems Classification has been adopted by the British Columbia Fish and Wildlife Branch and the Federal Fisheries Service; our Terrain Classification has been adopted by the National Soil Survey Committee.

A firm stand is being taken by the Branch on the standardization of scales and the adoption of the SI ratios of 1, 2 and 5. Our "key" scales are 1:10 000, 1:20 000, 1:50 000, 1:100 000 and 1:250 000. From these a number of intermediary scales can be derived. The province has already made a commitment to utilize the 1:20 000 scale for resource management presentation and a decision will be made shortly on 1:5 000, 1:10 000 and 1:100 000 scales.

Problems Associated with Maps and Libraries

I would now like to talk about some problems associated with mapping and libraries which may or may not be common to your concerns; I hope you will recognize a few and, after discussion, possible solutions can be recommended.

Maps these days seem to be getting larger and larger. Many factors contribute towards the need for increased sizes some of which are as follows:

1. most users prefer to see an entire study area on one sheet, if possible.
2. where larger scale studies are required, smaller scale bases are enlarged, increasing overall map size.
3. a greater geographical area can be shown on a larger sheet.
4. expanded legends attached to the map make the document a more complete, stand-alone package thus avoiding a short report or narrative to accompany the map.

What some mappers fail to recognize is that large maps create the following problems:

1. they no longer fit in map cabinets without folding or rolling; mylar does not lend itself to folding.
2. users find them unwieldy to roll or fold out at a meeting or in a small office.
3. in some cases reproduction facilities are disregarded; by exceeding paper and film sizes it is no longer possible to run a blueprint or order a duplicate mylar from a vacuum frame.
4. sometimes the user is confused with the extra detail that is shown on a larger format.

A second problem associated with thematic maps is the continual evolutionary change of classification systems. A prime example of this occurs in the British Columbia Soils Mapping Program. Symbology has changed so drastically over the years that adjacent map sheets do not match. Users are confused with complicated legends that cannot be correlated without a degree in soil science. No time is available for the professionals to update the maps to the newer classification system, and the snowball keeps rolling.

Scales themselves can tend to be a problem in a number of ways. If an individual is trying to collect a package of maps to analyse an area, he often ends up with a 20 chain (1:15 840) planimetric base map, a 1:20 000 forest cover map, a 2000' = 1" status map, a number of 1:50 000 and 1" to 1 mile thematic maps and 40 chain photography. How does it all fit together without considerable camera time? Unfortunately our Branch is adding to the problem by producing folios at a number of different scales dependent on the users application of the data. The resultant problem is that any one discipline or theme represented in each of the folios is available at a variety of scales and no attempt is made to standardize and convert to a common one.

Within a four to five year span topographic mapping has converted from 1:126 720 to 1:125 000. Presently, in an effort to standardize scales, all of the 1:125 000 maps will be converted to 1:100 000. The end result is that some 2000 square feet of shelving is no longer useful because the maps are 3" longer on one axis. Similarly, all obsolete scale maps must be destroyed to make way for the new ones. These are some of the problems we face with maps and libraries that may reflect your concerns as well.

Summary

In summary, as a representative from the Presentation/Compilation Section of the Resource Analysis Branch, I welcome any comments that you may have. Part of my responsibility is to communicate with other Governments, Ministries, Regional Districts, companies and private individuals to offer liaison on what data we have and how it can be used.

Finally, I am available to any participants here who wish to ask questions related to RAB mapping, presentation techniques, distribution of information, or the general operation of our Map Library.

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IMPACT OF CHANGING TO THE METRIC SYSTEM

R.W. Thorpe
Acting Surveyor General of B.C.

The metric system was developed by a commissioned group of French scientists and was adopted and made compulsory in France in 1837. In the original metric system, the unit of length called a metre was one ten millionth (1/10,000,000) of the distance from the North Pole to the Equator, measured on the earth's circumference. In 1875, an organization comprised of seventeen nations was formed, called the International Bureau of Weights and Measures, and the "Treaty of the Metric" was signed by the attending members. This was a permanent organization established to make changes to the metric system when such changes were considered necessary.

By 1900, the metric system had been adopted by thirty-five nations, and by 1970, almost every country in the world had either converted or planned to do so. Notably, Canada and the United States still were not converted, although the Canadian Government at that time established a commission to plan for conversion. While the Americans are lagging behind us in their efforts to go metric, the Canadian government aims to have this country totally converted by 1980.

In the field of surveying, measurements have been in the English system; feet and decimals thereof for distance, and square feet and acres for surface area measurement. Prior to the use of feet, and in fact continuing until 1959 on all "original" surveys, distances were measured in chains and links. These units were based on Gunter's chain consisting of 100 links to the chain, a chain being equal to 66 feet. This of course is the measurement we are accustomed to on all Township surveys across Canada.

It has been said that lawyer's mistakes end up in gaol, doctors bury their mistakes, and surveyors monument and place their errors on record for all to see. The point is that the nature and purpose of land surveyor's work, regardless of its accuracy, requires that it be recorded in central specified offices for the use of the public. In the case of British Columbia, all original surveys (Township and District Lot surveys) are recorded with the Legal Surveys Branch of the Ministry of the Environment. Subsequent divisions of these surveyed lands, when made under the Land Registry Act, require the deposit of such plans in the appropriate one of seven Land Registry Offices in the Province. These plans are the basis of title, and any dealings with a titled parcel of course requires reference and referral to the deposited plan. When further survey is required (subdivision, consolidation, rights of way, etc.) all adjoining pertinent plans are involved in the process.

For this reason, metric conversion for the surveyor is not a simple matter of discarding a former system and adopting a new one, but rather the inclusion of yet another system to contend with. Due to the fact that the majority of new surveys are within, adjoin, or are in some way affected by previously deposited surveys recorded in pre-metric units, the foot and the chain will necessarily remain in the surveyor's vocabulary forever more.

Insofar as actual field work is concerned, the physical measurement of distances in metric is no different than in any other unit; corrections to the metric tape are made, as with any tape, for slope, temperature, and "sag" if the tape is unsupported. An inconvenience occurs in the necessary conversion of dimensions on the previously recorded adjoining or surrounding survey plans for comparison and check purposes. Admittedly this is not a great problem, just a nuisance.

Of greater significance are the rules, regulations and by-laws by which surveyors are to be governed in their conduct of a survey to enable approval of, say a subdivision survey, by the various approving agencies concerned. In British Columbia, a Metric Conversion Co-ordinating Committee was set up to propose a changeover timetable, and advise all levels of government responsible for regulations and by-laws to prepare for the conversion.

Municipalities, for instance will need to amend their by-laws as they affect subdivision, lot sizes, building setbacks, and so forth. In this regard, "soft" conversion of existing standards, that is a conversion of the existing "foot" requirements to the exact equivalent in metres, is discouraged. Instead, where possible, whole new number standards in metres are preferred. For example the Ministry of Highways has adopted 20, 25, 30 and 60 metre widths for new roads in place of the former 66, 80, 100 and 200 foot widths respectively. Consideration also must be given when drafting new by-laws to insure that proposed new metric equivalents for building setback and sideyard minimums do not cause existing structures to become non-conforming. In British Columbia, the latter problem must be tackled by the individual municipalities and Regional Districts, and hopefully as much conformity as possible will be attained through advice and guidance from the Ministry of Municipal Affairs.

The onerous job of amending all the statutes and regulations which in any way affect surveys has been completed. However, not all of the Acts as amended have been proclaimed by Cabinet. Surveys under the Petroleum and Natural Gas Act will apparently continue in English measure until such time as the petroleum industry goes metric.

A new Land Titles Act has been written to replace the Land Registry Act, and until this is proclaimed - probably not before the spring of 1979 - provision has been made for acceptance by Registrars of surveys in either foot or metric units. This of course is the Act under which the majority of surveys in B.C. are conducted. Surveyors have been encouraged to lead the way by going metric whenever possible.

No choice exists in surveys under the Land Act (Crown land original surveys), integrated surveys under the Official Surveys Act, the Mineral Act, and the Strata Titles Act - metric is mandatory.

As stated previously, the mechanical use of metric by the surveyor in the field doesn't present any great problem other than the initial unfamiliarity. Metric tapes are available in various lengths and styles; most electronic distance measuring equipment has a readout in both metric and feet by the flick of a switch; the measurement of angles remains on the basis of the 360° circle, with 60 minutes of arc to the degree, so existing transits require no modification; and desk as well as many pocket calculators can be programmed for metric use.

The design, layout and posting of a survey, based on clearly laid down survey regulations, is no more difficult in metric measure than in feet. Inevitably however, circumstances will arise to present some head scratching and unusual situations. I can visualize for instance a new subdivision being made as an extension to a previously registered subdivision survey made in feet. Roads dedicated by the first survey at a width of say 66 feet which are now to be extended to serve the new development, will presumably be surveyed 20 metres wide. Thus a slight narrowing of the road occurs, creating a jog in each boundary of, in metric, about 6 centimetres. This can't be avoided unless the new road is "soft" converted to a width of 20.1168 metres which, as stated previously, is not recommended for obvious reasons. 20.1168 m is an awkward figure to look at and to deal with. There will be instances however where, due to the existence of previous surveys with gaps between them along or fronting a road of an established width in feet, a "soft" conversion for width of the portion of intervening road to be dedicated or otherwise established might be most sensible. Such circumstances would most likely occur in the case of Crown land applications being surveyed to fill in between existing lots which have been created in a ribbon type development along a public road. Similarly, the owner of a large tract of land (I was going to say acreage, but that's a term to avoid now) who is developing it in phases, may have had to dedicate through roads across the whole of his holdings to the nearest public road. Such roads, established at whatever width in feet, will necessarily be incorporated in subsequent phasing development at that fixed width, which means the "soft" or exact equivalent metric width for those roads must be perpetuated on following surveys and plans.

Bearing trees are made to reference an original corner such as a District Lot or Section corner post. These are trees, three in number if available, blazed with a flat surface facing the post, and on which is carved "BT" and the distance from the post to the tree. The bearing from post to tree is also read and this information is

recorded in the notes and shown on the plan of the survey. It is not uncommon to find or replace an older corner from bearing trees on which the distance is carved in links, and to make and carve new bearing trees in feet for that corner. I can see the possibility, when carrying on this practice, of having a corner referenced with BT's carved in all three units. That is, some in links, some in feet and some in metres. A bit confusing, and certainly requiring careful referral to past records when such a corner is to be replaced from those references in the future.

Having completed the field survey, the surveyor must prepare a plan in metric to one of the approved scales. Our metric survey regulations permit scales of 1:1, 1:1.25, 1:2, 1:2.5, 1:5, or multiples of same by integral powers of 10. The most common scales for cadastral survey plans will therefore be 1:500, taking the place of the former 1" to 40, 50 and 60 feet; 1:1 000 for the former 1" to 80 feet; 1:1 250 as the substitute for 1" to 100 feet, and 1:2 500 for the previous 1" to 200 feet. I must confess that it is the metric scales that I find the most difficult aspect to come to grips with - I have to relate the given metric scale to the nearest inch per foot equivalent, which of course the purist says one shouldn't do if one is ever to become entirely familiar with metric.

Dimensioning in metric on surveyors' plans is quite straightforward - distances in metres and decimals thereof, and areas in hectares to four significant figures. Areas of less than one tenth of a hectare (1000 square metres) are to be given in square metres. From the point of view of the practising surveyor, therefore, the application of metric to his field work and preparation of final plan is no great handicap, but simply is a matter of becoming familiar and comfortable with it through usage.

Some rather onerous aspects of the metric changeover however, do occur in the Legal Surveys Branch of the Ministry of the Environment. The records and plans of all surveys of Crown land in the Province, made from Governor Douglas' time to the present, are on deposit in this office, and the plans of these surveys are called the "Official Plans" of the parcels concerned. Much of this surveyed land has been alienated by grant to private individuals, and thus passes from the administration of this office to that of the Land Registry Office under the Ministry of the Attorney General. There still remains however a great deal of surveyed land, in the form of District Lots, Sections of Townships and foreshore lots administered by the Crown, and surveys are constantly being made of these lands, as well as unsurveyed Crown land, for purposes of defining areas for lease or purchase, Crown subdivisions, rights of way, etc. Any such surveys which adjoin or are within lands presently shown on an Official Plan are upon final acceptance, cross referenced and plotted onto that plan. Again I make the point that the presently deposited records are recorded in either chains or feet, which necessitates the conversion of the metric plan to the units in which the original survey is plotted. This process was of course also necessary when "foot" plans were required to be referenced onto "chain" plans, so the principle is not new. The purpose of the cross referencing is to show graphically the existence of surveys subsequent to the original which will thus be evident in any future dealings with that particular parcel of Crown land affected.

It frequently happens that existing surveyed Crown land is disposed of by grant or lease without the need of a new survey. An aliquot part of a District Lot or Section which originally has been adequately posted would qualify in this regard. Existing public roads, or access strips considered necessary to provide future access to lands

beyond, are first excluded from the parcel to be alienated. In the case of a surveyed road through such a parcel, the road is excluded at the metric equivalent of the surveyed width, i.e. a soft conversion. Similarly, a gazette road is "soft" converted to the published gazette width. Otherwise, an unsurveyed road, or a road allowance to be reserved paralleling a boundary, is excluded at the required "hard" metric width. The Official Plan of the area being dealt with is amended to reflect such deletions, with the road widths shown in metric, regardless of the units in which the perimeter of the parcel is given. A new "area" table is added to the parcel - converting the given acres to hectares, subtracting the area of road, and showing the net area subject to disposition in hectares. While this sounds more confusing than it actually is in practice, nevertheless it is a further complication to be accommodated into the system. This is inevitable whenever the new metric system has to be melded or used in conjunction with existing plans in other dimension units and scales.

The dollar cost of converting to metric in the survey field has been relatively small compared to that which will be encountered in most other industries. Metric tapes, scales, and computer program conversions are not major cost items. The most significant expense in administering the changeover in our office has been the time required to re-write and print the survey instruction manual for metric surveys under the various statutes.

The obvious question is - what is the advantage or benefit gained by this whole metric exercise? Standardization and conformity of a system of weights and measures between all countries is the object, which obviously is an advantage in international dealings, be it in the scientific field, engineering, trade and industry, or whatever.

So how does surveying relate to this concept? In the field of geodetic surveying, it is entirely relevant and advantageous. This is the science dealing with the size, shape and curvature of the earth, and the position of points on the earth's surface relative to one another. It is a highly specialized science of which I know little, but obviously a common unit basis of measurement is essential to permit interchange of knowledge between countries.

Cadastral surveying, about which I have been speaking, deals with property boundaries, and their relationship with adjoining properties.

A person in Victoria who hires a surveyor to establish his boundaries or subdivide his property couldn't care less where his corners are in relation to a position in Switzerland, South America, or Saskatoon. He is only interested in the position of his boundaries relative to his neighbours. Through the integration of surveys in certain cities and municipalities in this Province, it is indeed possible to relate positions within those integrated areas, and in turn to other integrated areas tied through the triangulation net. Benefits do accrue from this process, but it is an insular type of thing in application, at most extending to include all of British Columbia, but in a practical sense, to include only the areas integrated and control monumented. It makes sense to tie into and adopt a North American co-ordinate system which will relate to a universally accepted datum, simply because it is there. The fact that this co-ordinate system will be in metric is of no particular advantage, because cadastral surveying is limited, in a practical sense, to the immediate area of the work involved, and within that area, the foot would serve as well as the metre. It is not until the large scale plans prepared by surveyors are consolidated into composite maps, which then are expanded to span larger areas

and join up with other similarly mapped areas, that the common origin of co-ordinates is of real value. People who are familiar with maps will appreciate this. But this aspect really doesn't concern the "grass roots" surveyor in his day to day operations, metric therefore is of no obvious advantage to him.

The benefits or otherwise of the changeover are academic however - metric is upon us and will become the accepted norm, like it or not, and the surveying profession, like everyone else, will adapt and learn to live with it.

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CANADIAN CARTOGRAPHICS LTD.

Lou Skoda
Canadian Cartographics Ltd.
Coquitlam, B.C.

It is a pleasure and a privilege to be able to speak to you today, but more than that, I must regard this as a real treat since I am being given a rare opportunity to deliver an uninterrupted fifteen-minute commercial without having to pay commercial rates.

Background

The private mapping sector in Canada is largely made up of photogrammetric and topographic engineering firms. Outside some of our universities, which occasionally prepare "thematic" maps for public consumption, there are few private cartographic organizations that are interested in, or are capable of, producing "thematic" maps as an integrated in-house operation. Canadian Cartographics Limited is one of the few.

This paper outlines the objectives and describes the current program of Canadian Cartographics, an up-and-coming cartographic firm in Coquitlam, British Columbia.

Our Objectives

Canadian Cartographics started active business in 1973 with a threefold objective:

1. To generate curriculum cartographic aids, particularly for the British Columbia education system.
2. To prepare and publish maps for general distribution and use.
3. To provide professional cartographic services, as consultants, to local, regional and senior government agencies and to private organizations that may have use for such services.

Our progress toward these objectives has been slow and spotty.

Our Recent Programs

In the educational field we are yet to complete a project, although we have two in the early stages of development. One of these projects concerns the preparation of a "map reading kit" suitable for primary as well as secondary grades; the second involves the preparation of a "physical-administrative" wall map of British Columbia. Both projects will probably be slow coming off the presses for lack of sponsors.

In the category of popular cartography we have so far completed two projects: Calgary Street Guide and Yukon Official Road Map.

The Calgary Street Guide consisted of a sixty-four page pocket-size booklet containing historical notes, list of points of interest, street index, large scale neighbourhood maps and a four colour fold-out map of the city with insets showing the location of Calgary in Alberta, large scale map of the Calgary Stampede Grounds and an inset showing the City's land use. I should note that we do not hold the copyright to the map.

Our second project in this category resulted in a road map of Yukon scale of 1:2 500 000, which was commissioned by the Yukon Government through its Department of Tourism. A notable feature of this map is its physiography, preparation of which was aided by the use of satellite imagery. The result is a fairly accurate representation of the relief. I understand the map has just come out in second printing. Machine proofs of the first four colours of the initial edition are on display for those who wish to look at it.

Our current inhouse activity in the area of popular cartography involves the development of a pilot street guide and the preparation of an oblique map, on the Austrian cartographer Beran's model, of the Pacific Coast looking north-east toward Vancouver from about 10 km above the Pacific, east of the Olympic Peninsula.

The street guide will represent an attempt to make such a map more useful to residents and to visitors alike. Besides the usual streets and street names, the map will show detailed land use, with most buildings drawn to scale, site specific information on public and commercial services, location of phone booths and other information designed to provide comprehensive representation of the urban environment. The pilot map covering school District No. 43 of which Coquitlam is the major component should be completed before the end of the year.

The firm's sustaining activity has been in the field of consulting. Our first project in this capacity was the Georgia Strait Urban Region Map. The research for this map was started at the University of British Columbia under my direction. The data analysis, data manipulation, graphic design and drafting were carried out in Coquitlam. We selected and surpervised a local printer, delivering to Urban Affairs and Environment Canada, clients of this project, 5000 copies in English and 1000 in French of the final map. Our next project was a two-sheet map of Lower Mainland for Canadian Pacific Railway Industrial Development Branch. This map is also on exhibit. The map is a summary of information pertinent to initial locational analysis of industrial activity requiring rail services; location and extent of serviced industrial land, isochrones based on travel time on major roads, average daily road traffic volume, classification of railways, trackage under running rights regulations and other railway specific and general map details. The firm retained copyrights to this map, planning to expand the base into a regular street guide of the Fraser Valley.

We have acted as consultants to both the British Columbia Lands Services and the British Columbia Forest Service. In the case of the latter, our advice for the treatment of two new vegetation map series was accepted and we are now in the process of preparing final graphic designs for a pilot sheet in each of the series - one at a scale of 1:20 000 for a "Treatment Unit Map", which will aid in the management and planning of the forest resources at the operational level, and the

other, at a scale of 1:500 000 to represent the biogeoclimatic subzones and provide a broad ecological perspective of the forest resources. These two pilot sheets are expected to be completed within six months. Our previous work in this area resulted in a three-sheet synecological map of the University of British Columbia Research Forest at Haney. This map is now on its was to Washington, D.C., as part of the Canadian exhibit at the I.C.A. meeting in August.

Our current acitivity is centred on the preparation of a cartographic summary of resource information and of social, economic and other data to aid in the regional planning in the Kitimat-Stikine Regional District. As a spin-off from this project, we prepared a brochure presenting the suitability of the Kitimat-Terrace Corridor for industrial development. Copies of this brochure are on exhibit. Our other obligations to the Kitimat-Stikine Regional District will include the preparation of a tourist brochure with detailed information on the Stewart and Hazelton areas, the second being an important Indian cultural centre, and the preparation of a tourist guide to the whole district.

These are our major projects and are typical of what we do as cartographers.

Our Problem

It is my estimate that about one and a half million copies of maps are "consumed" in British Columbia each year by the general public, mostly in tourist activities. This number does not include the quarter-million off copies of maps sold by the Surveys and Mapping Branch.

As a cartographic firm we have been entirely unsuccessful, so far, in securing an order for even the minutest part of this map requirement, even though we are probably the only private cartographic organization in British Columbia using trained cartographers and are interested and active in the field of popular cartography.

Our second major problem concerns the education of potential clients to help them recognize that we have expertise and services to offer that would be useful to them.

Our first problem stems from the fact that client decision makers invariably are content to let the printing firm salesman make most, if not all, of the decisions concerning maps; often including decisions on what should, if anything, be added to the map in updating. Going to the printer directly might have been the traditional route in British Columbia but, if we want to avoid the situation where, for example, a new map is commissioned to replace an old one, which came under considerable criticism because of its numerous errors and then finish up with a new map which is partly a simple tracing of the old map, errors and all we simply have to abandon such a tradition. In this regard much needs to be done to persuade decision makers that since it is more normal to ask a plumber to do our plumbing, or an accountant to do our accounting, it is not advisable to ask a printing salesman to do cartography even though the task of drawing lines and other cartographic chores may be passed on to someone else.

The second problem can only be overcome gradually via personal contact or through exposure to completed work for some other client. It seems reasonable to expect that the process will be a lengthy one, especially because there are so few firms involved.

Conclusion

In conclusion I would say that we are a great success because we have managed to survive for five years. We feel that our activities are helping to raise the standard of cartography in British Columbia thereby making the discipline socially just a little bit more relevant.

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INDEPENDENT MAPPING AGENCIES IN BRITISH COLUMBIA

Doris Stastny
Victoria, B.C.

It has been very interesting to hear what Lou Skoda has had to say about his kind of private practice in the mapping business - and I must say that it points to a sad error on my part in not taking a drafting course and getting into contract mapping myself!

However, let's look at another kind of map production for gain - profit, maybe. This is the production of maps in quantity for distribution, whatever the purpose. Let me make it clear that I cannot pretend to be covering the situation Canada-wide. However, I do believe that most of what I have to say will apply elsewhere, though the effect of larger markets will modify some of my conclusions.

I have been in some difficulty in deciding what emphasis to give this report. At first, being in business, I wrote a report discussing the interaction of cost, demand and price; but I thought this would hardly be of prime interest to you. Then I looked at types of independent map publishers and their reasons for publishing; a very mixed bag. I finally concluded that your chief interest would be in the kind of maps which are produced privately, and how you can best collect them.

What can be said about the kind of maps produced? First of all, I think it is true to say that the privately-produced and published map almost never has any great academic pretension. This is for a very good reason: such maps involve expenditures of time far too great to allow an economic price; and government agencies publish such excellent maps and charts that the private agency cannot compete.

Yet independent agencies exist, and the reasons are several: they respond to certain demands that government usually does not. There is a demand for up-to-date road and facilities maps; for easy-to-read maps; and for easy-to-handle maps with wide distribution. The private mapping agent tries to answer all these needs.

So now we can examine the fields in which the private publisher finds he can operate. There is the map of a very large area; maps of the world or of whole countries. Such maps are always in some demand, not a huge market, but a very steady one with the advantage that a very few publishers can operate world-wide and so sell enough maps to make the necessary frequent revision possible. In the case of Canada, I am told that the only maps showing the whole country with roads are published in England! I haven't checked this extraordinary statement, but I accept it from my local store specialising in the sale of maps - it is their business to know about such things. I heartily recommend that any map librarian seek out the local map dealer, not only for maps of large areas, but for information on the acquisition of all sorts of privately-published items. Such dealers are well-worth cultivating.

When we look at the situation with maps of whole provinces, however, we meet one of the major issues in private map production: do we charge, or do we finance a giveaway? In the past so many whole-province maps have been given away that the idea of paying for them is quite hard for the public to accept. The interesting point here is that the oil companies (formerly the great givers) are now beginning to charge for their maps; but provincial governments are giving away maps to promote tourism. In some cases the private mapping agent is involved in such giveaways as a cartographic contractor, but such maps are in fact government publications. It seems probable, that in the face of such competition, the production of provincial maps for sale by private enterprise may well disappear. Meanwhile map librarians are faced with collecting such maps through oil companies or gas stations, with possible clerical problems in payment.

What is happening in the smaller areas: geographical regions such as Vancouver Island or the Okanagan Valley in B.C.? Vancouver Island offers a particularly interesting study: the Provincial Government produces a beautiful map in ten colours, reasonably priced at $2.00, which can hardly be bettered. How then can private enterprise compete with this effort? It is because of a lack of outlets for sale and, recently, because of the rolled-up format which makes storage and handling awkward. So private enterprise is moving in. Already on the market is a publication by Ian MacAul with maps of the whole Island and of the cities of Victoria and Nanaimo, including street gazetteers and some information, folded to fit into a book rack or glove-compartment, and priced at 93 cents. It sounds like a bargain, but quality has been sacrificed to keep the price down: the map ignores long stretches of public hard-top roads that have been completed for years. It ignores whole blocks of one-way streets in Victoria, marks public roads as restricted-access and logging roads as public and so on. To publish so much misinformation seems immoral to me; the publisher is making a killing however. Two other private agencies hoped to publish maps of the Island this year: one has its map at press now, the other has halted because the budget ran out before half the drafting was finished. The Vancouver Island Publicity Bureau's giveaway map of the whole Island has not been updated for several years. What does the map librarian do who wants accurate maps of a region? Try to find an up-to-date government publication and only then check your local map dealer, your department store, and any publicity agency you can locate.

Acquisition becomes a bigger problem as areas mapped by private agencies become smaller. The giveaway map is hard to obtain because it is a giveaway. They tend to cover fairly small areas, municipalities or a local tourist area. The publisher may be a municipality or a local group wishing to attract tourist revenue; a local group who is offering a service to the public, with advertising for its supporters; perhaps a logging company who wishes to improve its public image and reduce the costs of damage to eqiupment and search-and-rescue operations. Giveaway maps vary very much in quality too: some are produced by a cartographic company under contract to a local group; some by members of the group itself; some carry advertising of a blatant kind; some indicate supporting firms; some do not identify supporters at all.

But the problem of acquisition remains and we return to the interaction between cost and demand. The cost per copy is lower if a large number are printed, but these may last so long that they are not as useful as they should be in the end. On the other hand, demand may exceed supply to such an extent that the giveaway runs out before demand has been satisfied. The map librarian's answer here is careful timing; since giveaways are usually timed to appear as the tourist season opens, the collector of local area maps should apply to the municipality or tourist bureau in early summer so that the request and any new edition will coincide approximately.

For the profit-seeking agency the giveaway aspect of local area mapping may be fortunate, or merely frustrating. For the fact is, there is always some local demand for maps of towns or small regions, but the giveaway cuts the market for a marketed publication to the point where it may no longer be economic. Formerly, too, a local government authority would subsidize a private mapping agency to produce accurate maps with legal descriptions: this too has ceased - the grant goes to the tourist promotion group, and the municipality produces its own maps (which are sometimes sold and again reduce the market for private-agency maps). So, only in areas where local demand is very high can these maps be sold in sufficient quantities to cover the cost of frequent revision: such areas are the cities of Vancouver and Victoria, the southern part of this Island and the lower British Columbia mainland, near Vancouver. The map librarian can order such maps through the publisher, if one can be found, but even then care will need to be taken: publishers will go on offering maps for sale where a demand exists, long after the map has become hopelessly outdated. In my display is a map of the City of Courtenay, bought two days ago, and dated 1964. Revision became out of the question when financial support went to the Chamber of Commerce giveaway; and now the giveaway has disappeared because of its cost. Yet there is some demand for a good recent map of that city. Is it enough to justify private enterprise stepping in again? An opportunity, or a frustration?

I have few words of comfort for either the map librarian or the independent mapping agent. Costs are rising so fast that few independents can survive whose motive is solely profit, unless some other source of revenue is used. Other motives may intervene, however. The map of Quadra Island in the display was published by a California summer visitor as a public service. He has not been up for several years, so that one is no longer available. A sporting goods storeowner in Prince George, B.C., produced a map for sale - but it induced people to visit his store and helped to sell his goods.

Alternatively, the independent agent may modify his map or format to reduce costs, or may seek subsidy of some kind. Or publication may just cease.

My own small operation offers examples of many of these solutions. The original Map of Campbell River (and every edition until the most recent) had a format based on the British Ordnance Survey map: the map was hand-folded so that it could be used rather like a book and it was glued by hand into a stout protective cover. However, right from the beginning, the cover bore advertising to defray its own cost. By last year costs had risen so high that I told my customers that I would be going out of business. Then one of them suggested an out-of-province printer who could print more cheaply at the existing scale, and even more cheaply with a slight reduction in scale. I cut out almost all the expensive hand work, substituted a full-colour cover (hand-stapled, hand-stuffed, still) to increase sales, and raised the advertising rates almost beyond what the market would bear. Consequently the Map of Campbell River is available for another two years. But whether its companion, the Map of Comox Valley, which has a more limited circulation, can ever appear again will depend on whether I can capture advertising revenue by adding town maps to the verso. I have done this in the case of another publication, the Guide to Northern Vancouver Island. It has lost its hand-folded, hand-glued format; the map scale has been reduced to satisfy the demand for more textual information; local business offered to advertise so that their town maps could be included; and again there is a full-colour sturdy cover. In every case I received a lot of support from the local people - municipalities, sportsmen and logging companies.

Even so, I would not stay in business if profit were my only motive. But I like that part of the Island with its pioneer communities, and the family has a useful vehicle for camping and hauling (and ferrying conference delegates). The income is a bonus.

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REVIEWS

THE MAP COLLECTOR. no. 1- 1977- Tring, Map Collector Publications Ltd. Church Square, 48 High Street HP23 5AE England. Quarterly, Subs. L 17 (Canada). ISSN no. 0140-427X.

The first four issues of The Map Collector have now appeared, a journal intended, according to R.V. Tooley's editorial in the first issue, to be "broadly based, catering for the specialist, the librarian, the private collector and trade dealers," a journal in which "no angle relating to historical maps will be excluded."

The journal is obviously produced by a group keenly aware of the richness found in early maps and related material and a good eye for the visual presentation of this material. Each issue is a pleasure to browse through. Along with entire maps are reproduced attractive details and cartouches as well as instruments, catalogue pages and portraits of mapmakers. The illustrations, all black and white except for the coloured reproduction on each cover, are of a consistently high quality, as are the design and layout. Captions are often carefully prepared, some detailed and quite informative. The format is approximately 8 by 12 inches and it appears that the intention is to produce 66 pages in each issue, 30 to 35 percent of which is advertising.

The articles which constitute about one-half of the journal are generally short (fewer than 2,500 words), equal space frequently being allotted text and reproductions. Some of the material has appeared elsewhere in more detail but this does not detract from their value. These issues lean heavily towards British cartography, but the variety is there and may well increase as the journal matures.

In the four issues being reviewed, articles deal with individual mapmakers (John Speed, Alexander Dalrymple and the Bickhams), atlasses (Americae Rectio, 1592, Great Britain's Coasting Pilot, 1975 and Korean hand atlases), and the map collections of William Cecil (16th century) and of Richard Gough (18th century). Other articles include "Cartographers Versus the Demon Drink," "Women in the Map World" (more than sixty are listed, many of them widows of well-known cartographers who continued their deceased husbands' businesses), and "Military Mapping During the American Revolution." In Issue No. 4, "Care and Handling of a Map Collection" gives the sort of sound basic advice that should help insure the better treatment of maps by collectors and dealers.

The remaining 15 to 20 percent of The Map Collector comprises news items (exhibitions, thefts, new appointments, obituaries, etc.), profiles of map curators and dealers (including Helen Wallis, Ken Nebenzahl and R.V. Tooley), "crazy prices" being paid for maps, letters to the editor, and short book reviews and listings of books received. And, for the child in each of us, some competitions (match map with caption, for example).

Each issue also carries a "Collectors' Barometer," giving the prices of items sold at more than L500. More than three hundred separate items or lots are listed in the first four issues; No. 4 alone lists sales amounting to more than one million dollars. Finally, the "Collectors' Marketplace" lists maps for sale and maps wanted.

The "Collations" section, which treats an average of about four atlases per issue, shows signs of haste and carelessness which will make it the source of annoyance to collectors and curators. This section claims to aid in the identification of particular editions of an atlas and in dating of loose maps which have become detached from atlases. It does neither. The inaccuracies in titles give the impression at times that a rough draft has been type-set and printed without the benefit of being proof-read. In Issue No. 2 (p. 51) De Ram's Novissima Totius Terrarum Orbis Tabula is reproduced, with the title in the collation rendered as "Nova Orbis Tabula." In Issue No. 4 (pp. 48-49). four maps collated are reproduced. The United Provinces or Netherlands becomes "of Netherlands" and ....Mouths of Hoogly River.... becomes "of the Hoogly River." Some of the titles given for maps in Moll's Atlas Minor bear almost no resemblance to the map's titles. The Map Collector gives the title of the ninth map as "England with Roads"; the National Map Collection's copy of what appears to be the same atlas has the title The Road of ye South Part of Great Britain, Called England and Wales. Although the wording and use of ellipsis points in the collation of Seller's Atlas Maritimus is borrowed from the National Maritime Museum's four-volume Catalogue of the Library (London, 1969-71), no mention is made of the five editions of this atlas collated there. Rocque's 1765 edition of A Set of Plans and Forts in America.... is collated, but the collation of the virtually identical 1763 edition in Phillips (No. 1186) is not mentioned. Individuals coming across the maps with the titles given will assume the date to be 1765, which may be incorrect.

The journal is expensive. Institutions should not balk at the price but Canadian subscribers may be reluctant to spend thirty dollars per annum (that is, $7.50 per issue) for a journal with approximately forty pages of actual content. Except for the collations, which should either be dropped or done according to carto-bibliographical standards (the latter being preferable), the journal is a fine production, sure to cultivate an awareness of and interest in early maps. It is satisfying to see this journal appearing alongside the bulletins of the major map librarians' associations and publications such as The Canadian Cartographer, Cartographica, Mapline and Imago Mundi.

Edward H. Dahl
National Map Collection

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THE ECOLOGICAL LAND CLASSIFICATION OF LABRADOR: A RECONNAISSANCE. N. Lopoukhine, N.A. Prout and H.E. Hirvonen, Halifax, Lands Directorate (Atlantic Region) Envrionmental Management Service, Fisheries & Environment Canada, 1978. (Ecological Land Classification Series no. 4). 1 col map 1:1,000,000 & text 85p.

LANDSAT imagery has been generally available since 1972 and is now widely used for the inventory and mapping of natural resources. Broadened satellite capability and computer-assisted enhancement of data have improved the value of remote sensing for these purposes, but because of resolution problems, the data are most useful for reconnaissance purposes and have little direct practical value for management except in physiologically and ecologically simple areas.

This study is a reconnaissance survey of the biophysical resources of Labrador via LANDSAT imagery augmented by low-level photographs. The report anticipates intensified development of Labrador's hydroelectric, mining and forestry resources, and is intended to serve as a preliminary basis for regional planning, and as an educational and public awareness tool. It is innovative not in its use of LANDSAT imagery, but in its attempt to make the data operational. The study involves the development of a complete biophysical land classification for Labrador. Methodology follows the Guidelines for Bio-Physical Land Classification proposed by D.S. Lacate (1969), but LANDSAT data can only be mapped at the two smallest scale units, the Land Region (1:1 000 000 and smaller), and the Land District (1:500 000 to 1:1 000 000). These scales are suitable for the type of survey produced here.

The report is clearly intended as a regional environmental impact statement. It purports to allow identification of sensitive areas for concentrated research, and to serve as a foundation for sensible consideration of social and economic consequences of development. The aims and motives are laudable. Hopefully, they represent more than a token to controlled development and environmental protection.

The report is informative and an important contribution to classification and mapping in remote areas. On the scales used here, its most significant role is probably educational. The classification, the biophysical resource summaries and the photographs, effectively illustrate the complexity and sensitivity of boreal and tundra environments. The photographs, despite occasional duplication, are useful and well-reproduced. The summary map with its surround of photographs is in itself a valuable educational tool.

The report could have benefitted from the inclusion of more information on the use of LANDSAT imagery and the development of the classification. Clearly, only part of the information included in the descriptions is derivable from satellite imagery. The descriptions and assessments of the Land Regions and Districts are understandably limited. However, the subjective nature of the assessments, particularly those concerning recreational potential, are disconcerting, and in the light of the illustrations, seem sometimes unjustified. The idea of relative sensistivity that seems to recur throughout the report is misleading. It suggests too much of a development-orientated mentality.

The study complements previous LANDSAT-based inventories of natural resources and is a valuable contribution to the Ecological Land Classification series. It illustrates the usefulness of satellite data for low-cost, effective reconnaissance surveying in remote areas, and its potential for planning.

Anthony M. Davis
Department of Geography
University of Toronto

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MAP LIBRARIANSHIP: AN INTRODUCTION. Mary Larsgaard. Littleton, Colo. Libraries Unlimited. 1978, 330p. $17.50 U.S. ISBN 0-87287-182-7

Mary Larsgaard's Map Librarianship was published just in time to serve as the basic reference book for a course I gave this summer in the School of Librarianship at University of British Columbia. For this reason I was able to test the book on about twenty-three students, all of whom had completed at least one year of library school. Judging by the students' comments, the book was very useful to them; they appreciated both the racy style and the practical nature of the information. Even those concerned with small libraries, such as mining company libraries and school libraries, found much that could be used in planning better service with maps. However, Map Librarianship is probably most useful to those libraries who have a large or medium sized collection of maps with staff who run the map collection as their full-time or at least half-time job and who have some clerical help to do so. Also as the author says "it is primarily designed for use in libraries concerning themselves with twentieth century maps", so emphasis is not placed on historical maps which have "an extensive literature of their own". The book follows the steps usually taken in a library, from the selection of maps through ordering, classification and cataloguing, storage, reference work and the administration of a map library.

The chapter on "Selection and Acquisition of maps" is excellent. It discusses quite fully how to set up an acquisition policy, what type of supporting material to buy, how to find out about maps and how to order them. Although the ordering information is naturally U.S. oriented there is enough information to make it useful to Canadian libraries. The amount of practical detail about the selecting and ordering processes is excellent. More information about map publishing in other countries would have been useful.

"Map Classification", the next chapter, is an extremely detailed analysis of the major classification schemes and "Map Cataloguing and Computer Applications", which follows, does the same for cataloguing systems, including a history of computer applications. There is no other book that presents this type of information in such detail, and even though the state of the art is changing rapidly at the moment, the pulling together of the various strands is of great value. It should be mandatory reading for anyone who is considering computer cataloguing for maps. On a negative note, however, perhaps the amount of space taken by these two chapters is slightly out of proportion to the rest of the book, comprising about one third of it.

"Care, Storage and Repair of maps" is an excellent chapter on the practical aspects of map storage, the relative merits of flat or vertical cabinets and much useful information about paper and methods of preservation. It also gives a timely warning that all but minor repairs on even non-archival maps should be left to experts.

The chapter on "Public Relations and Reference Services in the Map Library" contains a description of the reference interview which is masterful and should be read by all reference librarians. Here I would have liked more discussion on the types of reference questions and how they can be answered. This, after all, is what map librarians spend a great deal of their time doing. As the author says it is the "heart of the library".

The chapter on "Administration of a Map Library", including planning and equipment, and the concluding chapter, "Map Librarianship: a Brief Overview" contain once again much practical advice and the wisdom that comes from experience.

The Appendices include, a sample acquisition policy, an exhaustive bibliography, a brief glossary of map terms, and many addresses for obtaining maps, geared mostly to U.S. libraries but with suggestions for finding information for other countries.

Altogether this is an extremely useful book, enlivened by Mary Larsgaard's wit and apposite choice of quotations about maps and librarianship.

Maureen Wilson
Map Librarian
University of British Columbia
Library

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BIBLIOGRAFIE VAN IN NEDERLAND VERSCHENEN KAARTEN, 1975. (Comp. by) Koninklijke Bibliotheek (and) Nederlandse Stichting Informatie- en Documentatiecentrum voor de Kartografie, s'Gravenhage: Koninklijke Bibliotheek, 1977. 100p. annual. f 17,50. ISSN 0377-8975 ISBN 90 6259 0047.

On the whole I found this Bibliography easy to read and use. Most of the problems encountered may be attributed to my lack of knowledge of the Dutch language. However by a little effort things can be sorted out quite well. For example the UDC area and subject code indexes may be used to translate the Dutch terms into the language of your choice by referring to the UDC tables. However, learning that individual sheet titles of a series are the ones in italics whereas all others are in capital letters (bold face typed in later volumes) may take a bit more trouble but not much.

Although the stated ultimate goal of this bibliography is "to give as complete as possible a survey of the Dutch map production" this was not possible for this first volume. Only those printed maps and atlases contained in the Depot van Nederlandse Publikaties KB (Deposit of Dutch Publications KB) are included. In addition to some printed items, other exclusions are manuscript maps, "photographic maps" and unpublished maps. Every effort was made to include printed items produced by large private and public agencies. Of these emphasis was and is placed on municipal mapping services, local tourist centers and provincial planning authorities.

The Bibliography is photographically composed from computer tapes of the DUMC system (Dutch Union Map Catalogue system). The cataloguing code is that of the DUMC system and, where compatible, the draft ISBD(CM) rules. The ISBD(CM) will be incorporated into the DUMC system for future editions (hopefully 1977) and so make the bibliography of greater use to cataloguers and a sound contriubtion in the area of the international exchange of information.

The Bibliography is organized in an alphabetical arrangement by publisher. Each publisher is then followed by an alphabetical listing by title of its publications. In addition entries are numbered consecutively from page one to the end.

Within the individual entry, each element has its own line, beginning with the title, and including any author information, edition, scale, imprint and date, the physical description, and, when warranted, brief notes. The UDC area and subject class numbers are given as are the items' access numbers in the Depot van Nederlandse Publikaties KB and the Dutch Union Map Catalogue respectively.

Two-level cataloguing is used to describe series items and atlases published over a period of time. The first level consists of the common elements for the series or the atlas and following this, at the second level, are the individual sheets. These latter are sub-arranged alphabetically by title, or by series number if such exists. Unfortunately, the first level does not include the beginning date of the series or atlas which is a great disadvantage to cataloguers and bibliographers.

To overcome any difficulties caused by the arrangement of entries under publisher, the bibliography contains a number of very useful and quite detailed indexes. The first is the area index. Each area name is subdivided by subject followed by the appropriate entry numbers. The cross-referencing from unused forms of the name to the preferred form could be enhanced. For example, even though there are a number of maps entitled Den Haag, there is no reference from that name to the preferred name s'Gravenhage.

The subject index is organized in the same manner, each term being subdivided by area. This technique is a great aid to locating specific items by avoiding the frustration of entries with hordes of numbers to search through.

In addition to the above mentioned indexes there are several other helpful appendices. The title index includes all titles save those of individual sheets of a series or atlas. The next two concern the UDC codes and their verbal equivalents which are helpful in both the selection and cataloguing processes. A really great aid to libraries is the list of publishers mentioned in the volume including their addresses. Lastly the editors have included the index maps for the topographic series Nederland 1:25 000 and 1:50 000.

As the bibliography is still in a state of evolution, improvements and refinements can be expected with each edition. Of interest to the English language community, the authors hope to include a foreword, and other aids to the use of the bibliography, in English within the next few years.

Velma Parker
Cartothèque
Université d'Ottawa

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FIRE INSURANCE PLANS IN THE NATIONAL MAP COLLECTION; PLANS D'ASSURANCE-INCENDIE DE LA COLLECTION NATIONAL DE CARTES ET PLANS. Robert J. Hayward, Ottawa, National Map Collection, Public Archives of Canada, 1977. 171p. free. ISBN 0-662-01609-2.

"Large scale urban maps are now the most sought after documents in the National Map Collection a phenomenon attributable to the growing interest in Canada's urban past". So speaks Robert Hayward, formerly of the National Map Collection but now with the Public Records Division, in his introductory remarks to Fire Insurance Plans in the National Map Collection, a recent publication of the Public

Archives of Canada. In this handsomely-produced, 171 page bilingual guide, Hayward has listed all the fire insurance plans, both Canadian and otherwise, held by the Public Archives. He stresses that this is by no means a Union List.[1] It would be hoped, however, that such a listing will be considered a worthwhile, and necessary project in the not-too-distant future.

A brief history of the production of Fire Insurance plans is given, commencing with those appearing in England in the late 1700's, followed by the Canadian plans prepared for the Phoenix Assurance Company of London and the D.A. Sanborn Company of New York.[2] It continues with a more detailed explanation of the work of the Charles E. Goad Company and the Canadian Fire Underwriters' Association (and later, the Canadian Underwriters' Association and Insurers' Advisory Organization) until the demise of plan production in 1975. An unfortunate destruction policy has resulted in the survival of only about one-third of the plans originally produced, of which the National Map Collection has twenty-nine thousand sheets. Hayward points out that the most obvious gaps occur in the periods 1875-1890 and 1915-1960, with plans of central Canadian communities more numerous than those of the rest of the country.

A few criticisms: The volume is organized geographically east to west, by province, with the town and city plans listed alphabetically and chronologically within each province. It would seem more accessible to have the provinces arranged alphabetically, particularly for the benefit of those researchers unfamiliar with Canadian geography. Although nicely "decorated" with some thirty-three illustrations (reproductions of plans), plus a photo of Goad, not all of these illustrations "match" the provinces in which they are found (eg. p. 13, Durham, Ontario in the Nova Scotia section; p. 114, Ingersoll, Ontario in the Saskatchewan section) - surely a bit more consideration could have been given to uniformity in this regard. There is a problem with cross-references - for example, p. 15, "Doaktown, see Newcastle", yet the researcher has no indication at which of the four Newcastle plans to look, as Doaktown is not included in all four. This may be the case with other listings as well, and tends to be misleading. Finally, on perhaps seemingly minor points, but nevertheless important to those concerned, p. 15 Saint John (city) is never abbreviated; and p. xii, footnote 9, it is implied that Newfoundland "belongs" to the Maritimes, an issue which any Newfoundlander, or Maritimer, would contest! (Newfoundland being an Atlantic province).

On the whole, Fire Insurance Plans in the National Map Collection is a most worthy addition to the increasing number of guides to research in urban history, and will be widely consulted. Congratulations to the Public Archives of Canada.

1. For example, there are at least a dozen New Brunswick plans held by the Provincial Archives of New Brunswick and approximately twenty more in the British Museum, of which the N.M.C. does not have copies.

2. Union List of Sanborn Fire Insurance Maps Held by Institutions in the United States and Canada, Vols. 1 and 2 have been published by the Western Association of Map Libraries in 1976-77 as Occasional Papers nos. 2 and 3 (with "Canada" represented by 6 entries under British Columbia!)

William R. MacKinnon
Archivist
Provincial Archives of New Brunswick

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TWELTH ANNUAL CONFERENCE - BUSINESS

National Commission for Cartography Report

This year's report concerning the NCC is written with a feeling of considerable encouragement and optimism. The May 1978 meeting of the NCC was one in which the major transformation in attitudes which have taken place during the past few years became clearly evident. The various sectors of the Canadian cartographic community are now working with a much more positive attitude towards the attainment of their mutual goals, and this was manifest in the spirit of the May meeting.

During the past year the major efforts of the Commission have been directed towards the following objectives:

1. In the International sphere:
   - ensuring a full complement of Canadian representatives on the Commission of the International Cartographic Association;
   - encouraging a high standard of cartographic papers from Canada for the ICA meeting in Maryland;
   - preparing a Canadian map exhibit for ICA, Maryland.

2. In Canada:
   Work towards the co-ordination of annual meetings of the constituent organizations of the NCC is continuing and becomes even more critical in view of the acute shortage of financial assistance for attendance at conferences. An agreement has been reached between CCA, OICC and CIS that their 1979 meetings will be in Toronto in May and ACML's meeting at Brock is being arranged with compatible dates. There will be a second National Cartographic Day in Toronto at this time. With regard to future plans, I would strongly urge that ACML leave its 1981 meeting plans flexible so that it is in a position to continue its co-operation in future activities.

   It seems that government employees at least are finding it much easier to obtain funding for problem oriented seminars or workshops rather than for conferences. Perhaps we should consider this when planning future meetings.

3. ACML's input to several projects has been notable. Aileen Desbarats was a member of the selection committee for papers for ICA Maryland. Bob Batchelder prepared an excellent map exhibit for the CIS Conference in Calgary in May. Thanks are due to both for their efforts and for upholding ACML's high reputation among the other organizations.

4. The Chronicle continued its role of regularly disseminating current information. Henry Castner will be away next year and has consequently resigned as editor. Neil Grant will be editor of forthcoming issues with some assistance from the Geography Department of Carleton University.

5. The Commission continues to seek ways to assist the Canadian Cartographer. This is one of the several situations in which the Commission is hampered by its own lack of funds. Various possible methods for funding the Commission were discussed at the last meeting but no definite conclusions reached.

6. At the May meeting it was unanimously agreed to modify the membership structure of the Commission as follows:

Old membership structure		New membership structure	
CIS	12 delegates	CIS	3 delegates
OICC	3 "	OICC	2 "
CCA	1 "	CCA	2 "
ACML	1 "	ACML	2 "
CAG	1 "	CAG	2 "
ICA Commissioners: voting members	10	ICA Commissioners: observers	
Total	28	Total	11

The purpose of this change is to create a smaller, more effective and democratic committee structure. This is a reflection of changing attitudes and a recognition of equality among the constituent organizations. The NCC executive has strongly recommended that organizations send their current President (or his/her appointed delegate) and one other delegate who will have a longer term of office, so that continuity can be maintained. The presence of the President will ensure that NCC can make effective decisions. I strongly support this and suggest that ACML adopt this policy.

I was originally asked to be ACML's delegate to the NCC for a period of three years. Since that term has now expired I would like to thank the Association for having provided me with the opportunity to serve on this body at a time when so much critical and interesting work was being carried out. It has been a rewarding and educational experience.

Barbara Farrell
Carleton University/Map Library

Editor's note: Barbara Farrell was recently elected for a two year term as second vice-president of the National Commission for Cartography

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Handbook Committee Report

The Handbook Committee started the year with only one member, due to the retirement of Beverly Chen and the absence on French language training of Hugo Stibbe. Because of this, and because our previous experience had indicated the difficulties of co-ordinating an editing task so that it could be carried out by committee, I continued writing and editing alone until Christmas. Since then I have unofficially co-opted the assistance of Dorothy Rogers (Head of Cataloguing at Carleton) and Grace Welch (layout and typing). Pamela Ross and T.P. Wilkinson have acted as reviewers. The comments of the latter led to more re-writing and re-organization of the text, which is now in the process of its third revision.

Barbara Farrell
Carleton University
Map Library

Report of Archives Committee 1978

Last year, at the annual meeting, inventory sheets were distributed to all officers with the request that they be filled in within 6 months. A follow-up request was printed recently in the Bulletin. No inventory forms have been received to date, and so this portion of the Committee's work cannot proceed. Officers are again requested to complete these inventory forms.

Within the past year additional publications have been added to the Archives, as well as the "truly impressive ACML archives" of Joan Winerals and other officers.

The National Map Collection generously donated the use of one filing cabinet for more than one year. Unfortunately the proliferation of paper in the NMC has meant that the ACML Archives are again stored in cardboard boxes. I am hopeful that this distressing situation can be remedied within this next year.

Dorothy Ahlgren
National Map Collection

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Report of Microreproduction Sub-committee on the Toronto Situation

My job was to contact commercial microform producers and map-producers to find out to what extent they were putting maps into microformats and 105 mm in particular. At the same time I was to report on the suitability of keeping certain map sets in any map library only on microfilm

I designed a questionnaire for the first part of the investigation and a sample is enclosed. Among the map-producers there was little or no interest in placing their products on microformat mainly because they see their main function as that of producing current maps which are maintained from chronaflex bases. They have little interest in the preservation of historic records and few seemed worried about the danger of loss. The City of Toronto Public Works Dept. had placed old survey records and registered plans on 35 mm microfilm aperture cards. The Ministry of Transportation used 105 mm in their actual computer map-production of large scale plans. A few did demonstrate reader and reader-printers in use and new developments in 105 mm reader-printer production (Laser-Scan, Cambridge England). None seemed worried about loss of scale accuracy. There are several more departments that I should also contact and will do so next year if it is considered useful to continue the project.

No commercial firms said that they could now make proper 105 mm reproduction of materials. All their cameras were set up for step and repeat production of regular micro-fiche. Few had advice on reader and reader-printers or would be interrested in selling them.

Micromedia is a company we should keep in touch with. They do not do contract filming but film their own packages and then market them. They said they would be interested in the distribution side of any special packages such as "100 best maps of Canada" or any products of the PAC 105 mm microfilming. They could make diazo

copies from masters. They were particularly interested in the problem of cataloguing data, headings and numbering systems on 105 mm and stressed the difference between "in-house" numbering systems and those for outside use.

I enclose samples of the questionnaires and notes on the results.

Maps in the U. of T. Library

The following map sets would be suitable for placement on 105 mm with the idea that the originals go to an archive and/or are eventually detroyed (! ?)

1. Ontario Land Capability maps 1:50 000 in black & white (once they are no longer current) approx. 5 sets of at least 2,000 sheets.

2. Ontario Shoreline Capability maps 1:45 840
   600 sheets? black & white.

3. Ontario Forestry Inventory Series. 1:63 360
   black & white. potentially serveral thousand

4. Toronto City buildings outline maps black & white 1:1 200
   1:2 400, 1:4 800 (300 sheets /year non-current sets.)
   - other sets of boroughs ca. 400/year

5. Toronto metro 1" - 40 ft. plans
   8000 sheets/per complete; current & older sheets.

6. Canada Aeromagnetic maps 1:63 360
   1:250 000 etc. when complete potentially 18,000 sheets (not sure about scale retention here - 1 set should definitely be preserve in an archive.)

7. Copies of early maps from other repositories unlimited number
   e.g. items one would either not be able to acquire or would not because of cost of hard copy.

8. Ontario topographical maps 1:2 000, 1:5 000
   1:10 000, 1:20 000 potential seven thousand sheets.
   - could not find storage space for complete coverage in hard copy.

Joan Winearls

APPENDIX I - QUESTIONNAIRES AND SUMMARY OF RESPONSES

Microfilming Project - Map Producers Questionnaire

Name of Dept:

1. Are any maps you produce now on mf:

   What size of film:

2. Have you had any problem in maintaining accuracy when enlarged to prints?
3. Have you considered 105 mm mf?
4. What mf. reader-(printers) do you use?
5. How do you make prints?

Remarks:

Microfilming Questionnaire - Commercial

Name of Firm:

1. Do you supply 105 mm microfilm products?
2. Do you have our own camera?
3. Cost per master? diazo copy?
4. What printing method/machine would be used for printouts?
5. Do you make a reader or reader-printer suitable for viewing 105 mm mf?

Comments:

Summary of replies to Questionnaire

A. Map - Producers

1. Metropolitan Toronto Planning Department.
   - do not place any maps on microfilm at present. Considered 35 mm but rejected it because it could not blow-back to absolute scale. Admits that a bar scale on each map would be sufficient and that they should be putting maps on mf. for insurance purposes.

2. City of Toronto Public Works Department Surveys and Mapping Branch.
   - place old survey records and maps on 35 mm aperture cards (since 1974) but not current series.
   - would consider 105 mm only if placing large scale series on mf.
   - They use the mini-Scan Reader & Caps-Enlarger-Printer.
   - Consider that an aperture system is essential instead of reel film or access is considerably reduced.

3. Ontario Ministry of Transportation & Communications.
   - Use 105 mm film for computer plotting of maps and making corrections.
   - Have had difficulty in getting a suitable reader-printer and now use a photographic enlarger to get blowbacks.
   - Are interested in Laser-Scan, Cambridge, England who have nearly completed a suitable reader-printer.

B. Commercial

1. Hughes - Owens
   - Do not make 105 mm mf.
   - do not sell a reader for 105 mm
   - Suggested K & E or Rand products.

2. Bell & Howell
   - Cannot produce a single image 105 mm mf. step & repeat microfiche only.
   - aware of Pepco reader.

3. Kodak
   - do not produce 105 mm mf. single image
   - nor do they produce a reader -
   - Considered unlikely to move into this area unless substantial volume
   - are filming maps on microfiche at present (e.g. 98 sheet set of San José for the fire dept. on 1 fiche)

4. Micromedia
   - At present producing step & repeat microfiche only; sell packages; are not contract filmers.
   - Are interested in selling/distributing packages such as "100 important maps" of Canada.
   - Could produce the diazo copies from a master. Concerned with standardized header numbering systems.

APPENDIX 2 - AN EXAMINATION OF AN EXPERIMENTAL MICROFILM OF A SELECTION OF WEATHER AN AEROMAGNETIC MAPS

Survey by Prof. R.W. Packer
Made at the request of Serge Sauer

Microfilming of weather maps and aeromagnetic series

As a method of retaining plotted data of a spatial kind, the microfilm appears to be satisfactory. As a storage mechanism for maps the microfilm suffers when 1) small scale maps are photographed, 2) colour is an important information piece, 3) aerial photography is used on the original.

U.S. Daily Weather Maps (old series)

Precipitation is well shown in spite of overprinting in the original. The station symbols are legible, though some station names are difficult to read.

Winnipeg Grain Exchange Daily Weather Bulletin

Some small confusion between precipitation areas and the blue screen used for water areas.

Facsimile reproductions from Weather Facsimiles (reversal of Black and White)

The surface analysis station plots are even more difficult to read than on the originals which are always over-crowed. The fronts and isobars are well shown. The 700,500 mb. facsimile are as good or better than the original since a much smaller data set is plotted. Coloured pencil overdrawn material is still visible.

U.S. Surface Daily Weather Maps (Weekly series)

no problems

U.S. Monthly Weather Outlook

no loss of data

Toronto Weather Office N.A. Analysis (coloured original)

No data loss greater than confusion on the original. Background topography still legible.

Aeromagnetic Series

1:253 440 - Completely unacceptable due to scale change.
1:63 360 - Still legible, but utility of the microfilm form is questionable.

Geophysical 1:25 000

The plotted date is readable, but the important air-photo base is not.

The quality of the microfilm is good, but care should be taken to determine what is to be retained; is it the data or is it the data display? If the former - microfilm - if the latter - retain the map.

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NOTICES AND COMMUNICATIONS

CONFERENCES AND SEMINARS:

Regional Seminar on Cartotechniques, Lindsay Ontario, March 1-2, 1979.

Proposed programme:

- Cartographic communications, an overview of the field, its aims and purpose
- Design, for the efficient use of resources
- Data capture, locating and acquiring geocartographic data
- Production, economic techniques and new technologies
- Automation in small organizations.

Kate Donkin will give a lecture emphasizing the map librarians view on these topics.

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Canadian Cartographic Association - Automation Interest Group

The Automation Interest Group, Canadian Cartographic Association, is sponsoring two activities in computer-based mapping. A workshop is being held in early March to demonstrate some of the packages available at the University of Alberta, Edmonton. In addition, an on-line test facility is being prepared to demonstrate mapping programs at remote locations via a computer terminal and the DATAPAC communication network. For further information contact Christopher Gold, Department of Geology, University of Alberta, Edmonton, Alberta T6G 2E1.

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Map Workshop, March 8 and 9, 1979 Green Conference Center Colorado School of Mines, Golden, Colorado

An intensive two-day workshop presenting basic information needed to organize and provide services for a map collection with a minimum of time and effort. Exhibition by map producers from the Denver area, including the U.S. Geological Survey.

Program:	Thursday, March 8	9am	Welcome Hartley K. Phinney
		9:15am	Maps in Libraries: an Overview, David Cobb
		11:30am	Lunch
		12:30am	Map Selection and Acquisition - Mary Larsgaard; Ray Hill, Lyle Kemper, T. O'Brien (USGS); Phinney
		4pm	Classification; Larsgaard
	Friday, March 9	8am	Care, Repair, Preservation & Storage Alice Sharp; Phinney
		9:30am	Catalouging; Larsgaard; Cobb
		11:30am	Lunch
		1:30pm	Reference Problems; Larsgaard; Cobb; Phinney
		3:30pm	Administration Cobb; Phinney
		4:30pm	Closing remarks

Resource persons: Mary Larsgaard, Map Librarian, Arthur Lakes Library, Colorado School of Mines; author of recently published text, Map Librarianship, an Introduction (Littleton Co: Libraries Unlimited, Inc., 1978); Chairman Elect, Geography & Map Division, Special Libraries Association
Hartley K. Phinney, Jr., Head Librarian, Arthur Lakes Library, Colorado School of Mines; map enthusiast
David Cobb, Map and Geography Librarian, Library, University of Illinois at Urbana-Champaign; Chairman of SLA Geography & Map Division's Professional Concerns/NCIC Committee; author of several cartobibliographies
Alice Sharp, Librarian, Historical Society of Colorado; special interest in map care and preservation

Fee: $35 TENTATIVE; possible one-day option, at $20; lunch included in fee

For further information, write: or call:

Mary Larsgaard
Map Librarian
Arthur Lakes Library
Colorado School of Mines
Golden, Co. 80401

(303)279-0300x2697

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ANNUAL MEETING OF THE ASSOCIATION OF CANADIAN MAP LIBRARIES
BROCK UNIVERSITY, ST. CATHARINES ONTARIO, MAY 23-26, 1979

PROVISIONAL PROGRAM
as of December 1978

Wed., May 23	20:00-	Registration and Icebreaker Reception
Thurs., May 24	8:00-9:00	Registration
	9:00-9:15	Welcome
	9:15-12:00	Paper Session: The Welland Canal Andrew Burghardt, McMaster University Alex Ormston, St. Catharines Historical Museum Larry Murphy, Dofasco Ltd.
	12:00-13:30	Lunch
	13:30-15:30	Business Meeting
	16:30-	Welland Canal Tour, followed by supper at Niagara-on-the-Lake and visit to Shaw Festival
Fri., May 25	9:00-12:00	Workshop: Surveying Techniques Lou Sebert, Department of Energy, Mines and Resources Alun Hughes, Brock University John McNeil, Brock University and others
	12:00-13:30	Lunch
	13:30-16:30	Paper Session: Maps for the Blind and Partially Sighted Roger Barnes, Queen's University Susan Lederman, Queen's University Dayton Forman, Canadian National Institute for the Blind Geoff Matthews, University of Toronto
	18:30-	Reception and Banquet
Sat., May 26	9:00-12:00	Panel Discussion: Coping with the Cutbacks Kate Donkin, McMaster University and others
	12:00-13:30	Lunch
	13:30-16:30	Reports Session Energy, Mines and Resources, Ottawa National Map Collection, Ottawa Natural Resources, Toronto and others
	18:00-	Possible trip to Niagara Falls.

Please note that all times are tentative at this stage.

Further information from: Alun Hughes, Chairman Organizing Committee, Department of Geography, Brock University, St. Catharines, Ontario, Canada, L2S 3A1.

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Canadian Cartographic Association Annual Meeting: York University, Toronto, Ontario. May 22-24, 1979

Call for papers was published in CCA Newsletter No. 10, September, 1978. Title and abstract should be sent to the programme chairman:

Mr. T.P. Wood, Head
Cartography Section
Ministry of Transportation and Communications
1201 Wilson Avenue
Downsview, Ontario
M3M 1J8

and should reach him by January 31, 1979. Final papers should be in by 15th March.

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Special Libraries Association, Geography and Map Division
Program for June 9-14, 1979, Honolulu, Hawaii, Annual Convention

Sunday, June 10	noon-2pm	G&M Executive Board meeting
	10-midnight	G&M Hospitality Suite
Monday, June 11	9:15-noon	G&M Business meeting
	2-4 pm	"Map Collections and Map Libraries: Politics and Economics" Moderator: Jeremiah B. Post, Free Library of Philadelphia
		"The Politics and Economics of Map Librarianship" David Cobb, University of Illinois, Urbana-Champaign
		"Collecting Microcartography: Sources and Prospects" Larry Cruse, University of California at San Diego
		"Standard Map Records: OCLC/MARC and the Map Librarian" James O. Minton, University of Michigan, Ann Arbor
Tuesday, June 12	9:15-noon	"Distant Parts: Cartography and Map Librarianship" Moderator: Janet Rudd, University of California at Berkeley
		"Thematic Mapping of China with LANDSAT Color Composites" Sen-dou Chang, Department of Geography, University of Hawaii
		"Maps and Map Keeping in Australia" Lilian Griffin, Massey University, Palmerston North
		"Manuscript Maps and the Political Economy of Nineteenth Century East Africa" D.R.F. Taylor, Department of Geography, Carleton University

"An Assessment of Philippine Map Collections"
Don Wise, Geography and Map Division, Library of Congress

noon-2pm — Luncheon program ATTENDEES PAY FOR THEIR OWN MEAL "Map and Chart Information Center" Gary North, Chief, National Cartographic Information Center Introducing Mr. North: David Cobb, Chairman of the SLA G&M Professional Concerns/NCIC Committee

2-4pm — Panel: "Recent Practices in Map Preservation/Conservation" Moderator: June Harris, Center for Afroamerican and African Studies, University of Michigan, Ann Arbor.
Betty Kidd, Chief, National Map Collection, Ottawa
James Craven, Bentley Historical Library, University of Michigan, Ann Arbor
Mary Lee and Robert du Meer, conservators, Bishop Museum, Honolulu
(Others to be announced)

7-9pm — "Hawaiiana: Maps of Hawaii"
Moderator: Gary Fitzpatrick, Geography and Map Division, Library of Congress

"The History and Geography of Hawaii in Maps"
Gary Fitzpatrick Geography and Map Division, Library of Congress

"Mapping of Hawaii by Laperouse"
Stanley Stevens, University of California, Santa Cruze

"The Lahainaluna Maps"
Peter Morse, Honolulu, Hawaii

NOTE: This session is being held at the Honolulu Academy of Art, and is being co-sponsored by that institution.

Wednesday, June 13 — Luncheon ATTENDEES PAY FOR THEIR OWN MEAL
"The American Geographical Society Library: Its Travels and Present Status"
William C. Roselle, Director, Library, University of Wisconsin, Milwaukee

2-4pm — "Production Procedures, Policies, Economics: Cartobibliographies and an Atlas"
Moderator: Robert Karrow, The Newberry Library

"The Procedures and Effects of the Midwest Map Catalog"
Patricia Moore, The Newberry Library

"Cartobibliography of the Mississippi Valley, Especially as Represented by Maps in the Sang Collection at Morris Library, Southern Illinois University-Carbondale"
Jean Ray, Southern Illinois Univeristy

"California Water: Politics and Economics of a New Atlas"
M. Kay Mowery, California Office of Planning and Research

7-9pm "An Evening of National Survey Maps of the Pacific Basin"
Hosted by Basil Idler, University of Hawaii; assisted by Sue Clark, University of Oregon
Sample maps from the Australian Division of National Mapping, Tasmanian Lands Department, Japanese Geographical Survey Institute, Singapore Mapping unit, and mapping units of Fiji, Papua New Guinea, and New Zealand

NOTE: This session will be held at the University of Hawaii Map Room

Thursday, June 14 9-6 Tour of Oahu

Friday, June 15 8am-9pm Tour of Hawaii

NOTE: FOR BOTH TOURS, ATTENDEES PAY FOR THE TOUR.

For further information, please contact Mary Larsgaard.

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NEWS FROM THE NATIONAL MAP COLLECTION:

Acquisition: Budgetary constraints have reduced acquisition in the historical cartography area of the National Map Collection recently. One of the most important items acquired was the map known as the "Zeno map" from the 1574 Venice edition of Ptolemy's Geographia; the fictitious islands of Frisland, Icaria, Estotiland and Drogeo shown on this map represent portions of North America supposedly visited prior to Columbus and recorded on a manuscript map by the Zeno brothers in the 14th century.

Government records obtained include maps and plans relating to the Department of Agriculture's activity at Brandon Research Station and charts from the Hydrographic Survey. Plans of stained-glass church windows by the Toronto firm of Smits and Ramsdale were acquired.

As part of the program to acquire maps in current production, letters are being sent to municipalities and map producers across Canada.

Documentation: The National Map Collection is now designated as "Library 5" in the authorities sub-system of the National Library. The computer program modifications were done with the aid of a Public Archives computer scientist, seconded temporarily to the National Library.

The new draft of the "Canadian cataloguing rules" was finalized. Members of the N.U.C. Committee will meet in November at the Public Archives for discussion of the rules and of the second draft of the Canadian MARC Communications Format Cartographical Materials.

Microfilming: The filming, on 105 mm. of the large size insurance plans is currently being undertaken by the National Map Collection.

Other: A divisional meeting was held in early July at which present activities and further projects were reported and discussed. Similar informational meetings will be scheduled once or twice each year.

Several temporary secondments commenced in September. Heather Stevens has been seconded from the Modern Cartography Section to the Documentation Control Section to prepare catalogue descriptions of Canadian topographic series. Thomas Nagy was seconded from the Government Cartographical and Architectural Records Section to the External and Internal Services Section to co-ordinate reference services.

Staff members attended the meetings of the following: I.F.L.A., International Cartographic Association, Society of American Archivists, Canadian Permanent Committee on Geographical Names, and Bibliographical Society of Canada.

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NEWS FROM AUSTRALIA:

The Seventh Annual Conference of the Australian Map Curators Circle will take place February 14-16, 1979 at the Royal Melbourne Institute of Technology. The theme of the conference is "The Map Curator.....Past, Present and Future".

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NEWS FROM NEW ZEALAND:

A Map Keepers Seminar will be held on February 8 and 9, 1979, at the University of Canterbury. It will immediately precede the NZLA Conference at Dunedin.

The October 1978 issue of New Zealand Libraries contains two articles concerning maps in libraries: "Muddle, mayhem and myopia: maps in New Zealand public libraries" by Brad Patterson, and "New Zealand maps: selection and acquisition" by P.L. Barton.

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PEOPLE IN THE NEWS:

Peter Brown has taken a position as Humanities and Urban Studies Librarian at Ryerson Institute of Technology, Toronto as of January 15th 1979.

Kate Donkin has taken a position as head of the Science Library. Kate continues custodianship of the Map Library.

Barbara Farrell was married December 1 to Dr. Gordon Merrill, a geography professor at Carleton University.

Richard Malinski formerly of the Map Library at Simon Fraser has taken a position as head of the Collections Library.

Tim Ross has left the Map Library at McGill University to become map librarian at the University of Windsor.

John A. Wolter has been promoted to the position of Chief of the Library of Congress, Geography and Map Division. Mr. Wolter, who has served as assistant chief of the division for the past 10 years, suceeds Walter W. Ristow who retired in April.

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REDISTRIBUTION

Electoral Atlases of Canada available for redistribution

The National Map Collection has in its surplus collection several copies of some electoral atlases which are described on the following list. As much as possible, we will try to complete your collection but we will also try to ensure a fair regional distribution. In preparing your list, please keep in mind that electoral atlases are used mostly in studies which cover the entire country not just a particular province. Please, place a check mark in the right-hand column against those items you would like to receive and return the list by February 28. Each institution claiming some of these atlases will agree to keep them permanently.

Atlas electoraux disponibles pour redistribution.

La Collection nationale de Cartes et plans a en main plusieurs exemplaires de quelques atlas électoraux qui sont décrits dans la liste ci-dessous. Ces atlas sont maintenant disponibles pour redistribution. Dans la mesure du possible, nous tenterons de compléter les séries dejà existentes mais aussi d'offrir un partage équitable entre les diverses régions. Veuillez prendre note que les cartes électorales sont utilisées dans des recherches couvrant généralement tout le pays et non une province particulière. Chaque institution qui réclamera quelques - uns des atlas devra s'engager à les conserver de façon permanente. Les listes devront être reçues avant le 28 février 1978.

Electoral Atlas of Canada/Atlas électoraux du Canada

	Description	Copies disponibles/ Copies available
1.	Redistribution Act - 1924	
	Yukon	17
	British Columbia	7
	Alberta	26
	Saskatchewan	13
	Manitoba	24
	Ontario	9
2.	The Canadian War Services Voting Regulations 1944	4
3.	The Representation Act 1947	
	N.S., N.B., P.E.I.	17
	Québec	9
	Ontario	15
	Manitoba, Saskatchewan	13
	B.C., Alberta, Yukon, Mackenzie River	13
4.	Canadian Defence Service Voting Regulations 1948	11
5.	The Representation Act 1952	
	N.S., N.B., P.E.I., Nfld.	2
	Ontario	3
	Manitoba, Saskatchewan	2
	B.C., Alta., Yukon, N.W.T.	2

Write to:/Ecrire à:

Gilles Langelier
Head, External and Internal
Services Section
National Map Collection
Public Archives of Canada
395 Wellington Street
Ottawa, Ontario
K1A 0N3

Chef, Section des Services externes et
internes
Collection nationale de cartes et plans
Archives publiques du Canada

PUBLICATIONS

ASSOCIATION OF CANADIAN MAP LIBRARIES/ASSOCIATION DES CARTOTHÈQUES CANADIENNES: PUBLICATIONS

NOTE:

1. As of January 1, 1979 Hand-coloured facsimile maps will cost $10.00 each.

2. The cover on a few of Bulletin No. 28, (Sept. 1978) was poorly printed. If you received one of these copies please return it and it will be replaced.

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The publications of each calendar year are distributed without charge to all members of the A.C.M.L. for that year. Back copies of the **Proceedings** and the **Bulletin** are available at the prices quoted below.

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Chaque année, les publications sont envoyées gratuitement à tous les membres en règle de l'A.C.C. Les anciens numéros des Compte rendu et des **Bulletin** sont disponibles aux prix indiqués ci-dessous.

I. Proceedings of the annual conferences/Comptes rendus des conférences annuelles

1. 1967.....$ 4.00
2. 1968 Out of print/Epuisé
3. 1969 Out of print/Epuisé
4. 1970..... 5.00
5. 1971..... 3.00
6. 1972..... 3.00
7. 1973..... 3.00
8. 1974..... 3.00
9. 1975..... 4.50
10. 1976..... 7.00

II. Bulletin

No. 1.	Vol. I, No. 1, (1968) (2 pp.).....	$ .20
No. 2.	Vol. II, No. 1, March/mars 1969 (6 pp.)	.60
No. 3.	Vol. III, No. 1, November/novembre 1969 (7 pp.)	.70
No. 4.	Vol. III, No. 1, March/mars 1970 (9 pp.).....	.90
No. 5.	Vol. III, No. 2 June/juin 1970 (9 pp.).....	.90
No. 6.	Vol. III, No. 3, November/novembre 1970 (12 pp.)	1.20
No. 7.	Vol. IV, No. 1, March/mars 1971 (12 pp.).....	1.20
No. 8.	Vol. IV, No. 2, May/mai 1971 (4 pp.)	.40
No. 9.	Vol. IV, No. 3 & 4, March/mars 1972 (22 pp.)	2.20
No. 10.	Vol. V, No. 1, June/juin 1972 (11 pp.).....	1.10
No. 11.	Vol. VI, No. 1, 1972-1973 (16 pp.).....	1.60
No. 12.	Vol. VI, No. 2, 1972-1973 (18 pp.).....	1.80
No. 13.	Vol. VI, No. 3, October/obtobre 1973 (45 pp.).....	Out of print/Epuisé
No. 14.	Vol. VII, No. 1, March/mars 1974 (43 pp.)	2.00
No. 15.	May/mai 1974 (35 pp.)	1.00

No. 16.	November/novembre 1974 (39 pp.)	2.00
No. 17.	February/février 1975 (44 pp.)	1.00
No. 18.	May/mai 1975 (66 pp.)	2.00
No. 19.	September/septembre 1975 (66 pp.)	1.00
No. 20.	January/janvier 1976 (34 pp.)	1.00
No. 21.	May/mai 1976 (34 pp.)	1.00
No. 22.	October/octobre 1976 (50 pp.)	1.00
No. 23.	January/janvier 1977 (70 pp.)	2.00
No. 24.	March/mars 1977 (74 pp.)	2.50
No. 25.	October/octobre 1977 (120 pp.)	6.00
No. 26.	March/mars 1978 (39 pp.)	5.00
No. 27.	June/juin 1978 (68 pp.)	5.00
No. 28.	September/septembre 1978 (64 pp.)	5.00

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III. University Map Libraries in Canada: A folio of selected plans. Serge Sauer. 1975.
$5.00 members/membres
$7.50 non-members/autres

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IV. Directory of Canadian Map Collections/Répertoire des Collections des cartes canadiennes. Lorraine Dubreuil. 1977. 126 pp.$10.00

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V. Historical facsimile maps Nos. 1-19.
$2.00 each/chacune
$10.00 handcoloured/coloriée

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Please address requests to:

Publications Committee
Association of Canadian Map Libraries
c/o National Map Collection
Public Archives of Canada
Ottawa, Ontario
K1A 0N3

Adresser vos demandes à:

Comité des publications
Association des cartothèques canadiennes
a/s Collection nationale de cartes et plans
Archives publiques du Canada
Ottawa, Ontario
K1A 0N3

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THE LIBRARY OF CONGRESS

The Library of Congress has just issued a Calendar of Panoramic Maps for 1979. All of the maps in this calendar are reproductions of ones drawn between 1868 and 1896. The originals are in the Library's Geography and Map Division. The 1979 calendar reproduces in full color' maps of the cities of Boston, Buffalo, Chicago, Cripple Creek, Grand Rapids, Hannibal, Houston, Jacksonville, Knoxville, New York, Salt Lake City, San Francisco, and Westerly.

The panoramic map was a popular cartographic form used to depict Anglo-American communities during the late 19th and early 20th centuries. Known also as a bird's eye view, perspective map, panorama, and aero view, the panoramic map is a nonphotographic representation of a city, portrayed as if viewed from above at an oblique angle. Although not generally drawn to scale, it shows street patterns, individual buildings, and major landscape features in perspective. The Geography and Map Division contains a representative collection of these city views, providing coverage for cities and towns in 47 states, the District of Columbia, and several provinces of Canada.

Calendar of Panoramic Maps 1979 is being sold at the Information Counter or by mail from the Information Office, Library of Congress, Washinton, D.C. 20540. The price of the calendar, which measures 9 by 12 inches, is $6.95, postage included. All mail orders must be prepaid.

Also still available is Panoramic Maps of Anglo-American Cities: A Checklist of Maps in the Collections of the Library of Congress, Geography and Map Division, compiled by John R. Hébert and published by the Library in 1974. This checklist records more than 1,100 panoramic maps of U.S. and Canadian cities contained in the collections of the Geography and Map Division. For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, for $2.20 a copy (Stock No. 3004-00011) or in person only at the Library's Information Counter.

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WESTERN ASSOCIATION OF MAP LIBRARIES: PUBLICATIONS

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. By Harold M. Otness. Paper No. 4, 1978. xx, 91 p. LC 78-15094 $6.00 U.S. pap.

The maps of Fiji: a selective and annotated cartobibliography, by Mason S. Green. Occasional Paper No. 5, 1978. xx, 70 p. $6.00 U.S. pap.

Available from:

Western Association of Map Libraries
University Library
University of California
Santa Cruz, Ca. 95604.

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A NOTE FROM THE PRESIDENT

At the Special Meeting of the Board of Directors, held in Ottawa on November 20th, 1978, Serge Sauer, Chairman of the ACML Historical Maps Committee, presented an interim report.

The full range of activities which must be carried out by this Committee cannot be adequately described here, even briefly. The results, however, speak for themselves. Since the June 1978 Conference, the Committee executed its fifth printing (maps Nos. 14-19), and now the sixth printing has come off the press. This latest group includes some fascinating maps, never before reproduced at this scale and for popular use. This is the largest printing run thus far - eight new maps (Nos. 20-27).

Apart from being the foremost fund-raiser for our Treasury, the Historical Maps Committee is extending the information about Canadian history, geography and cartography to thousands of map-users in Canada and abroad. Please give this Committee your full support in any way you can. Acquire maps for yourself and for your institution; display new publications where they will be seen by users of your library or archives; obtain and disseminate information about the sponsorship program, through which an individual, a private firm, or a governmental institution can co-operate with ACML in producing new maps. Address purchase orders to ACML (c/o the National Map Collection), and enquiries about the sponsorship program to -

Serge A. Sauer
Chairman, Historical Maps Committee
Department of Geography
University of Western Ontario
London, Ontario N6A 5C2

ACML HISTORICAL MAPS COMMITTEE - SIXTH PRINTING

No. 20	A Survey of River Detroit..... by Capt. W.F.W. Owen and assistants. London. 1828.	$2.00
No. 21	Niagara Frontier. Plan 2, R.H. Stotherd et al. Southampton. 1865.	$2.00
No. 22	Township of London. (From the Illustrated Historical Atlas of the County of Middlesex, Ontario, H.R. Page and Co. Toronto, 1878.)	$2.00
No. 23	Map of the Proposed Canal Through the District of Niagara and Gore to form a Junction of Lakes Erie and Ontario..... Commissioners of Internal Navigation First Report (York, 1823.)	$2.00

No. 24	(Sketch map of Upper Canada, showing the routes Lt. Gov. J.G. Simcoe took on trips between March 1792, and September 1795.) Attributed to Mrs. J. Simcoe.	$2.00
No. 25	A plan of the Straits of St. Mary, and Michilimakinac to Shew the Situation and Importance of the two Western-most settlements of Canada for the Fur Trade. From the London Magazine. London. 1761.	$2.00
No. 26	U Disegno del discoperto della nova Franza..... Bolognino Zaltieri. Venice. 1566.	$2.00
No. 27	Carte de la Nouvelle France..... H.A. Chatelain. Paris. 1719.	$2.00

Association of Canadian Map Libraries
c/o National Map Collection
Public Archives of Canada
Ottawa, Ontario
K1A 0N3

Association des cartothèques canadiennes
a/s Collection nationale de cartes et plans
Archives publiques du Canada
Ottawa, Ontario
K1A 0N3

Please note: maps Nos. 20, 25 and 27 available hand-coloured. All hand-coloured maps are sold at $10.00 each, and are available from ACML (National Map Collection).

BULLETIN STAFF