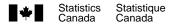# Federal Electoral Districts (2003 Representation Order) Cartographic Boundary File (geography products: spatial information products, 2001 Census), Reference guide

2001 Census

Statistics Canada Statistique Canada

Canada

How to obtain more information

Specific inquiries about this product and related statistics or services should be directed to your nearest regional reference centre.

For information on the wide range of data available from Statistics Canada, you can contact us by calling one of our toll-free numbers. You can also contact us by e-mail or by visiting our Web site.

National inquiries line	1 800 263-1136
TTY	1 800 363-7629
E-mail inquiries	infostats@statcan.ca
Web site	www.statcan.ca

Standards of service to the public

Statistics Canada is committed to serving its clients in a prompt, reliable and courteous manner and in the official language of their choice. To this end, the Agency has developed standards of service which its employees observe in serving its clients. To obtain a copy of these service standards, please contact Statistics Canada toll-free at 1 800 263-1136.

Statistics Canada

Federal Electoral Districts (2003 Representation Order) Cartographic Boundary File

Reference Guide

Note of Appreciation

Canada owes the success of its statistical system to a long-standing partnership between Statistics Canada, the citizens of Canada, its businesses, governments and other institutions. Accurate and timely statistical information could not be produced without their continued cooperation and goodwill.

What's new?

1. The Federal Electoral Districts (2003 Representation Order) Cartographic Boundary File was created by the roll-up of 2001 Census blocks. The federal electoral district limits (2003 Representative Order) do not always respect block boundaries.

2. The hydrography was generalized by removing small lakes from the file to reduce noise. Large rivers emptying into the oceans were closed off, and then the interior hydrography (double line river and lake polygons) was extracted to create the supplementary hydrography.

3. Increased hydrographic detail from the National Atlas and the National Topographic Data Base is used as reference to support the boundaries. These digital topographic data are provided by Geomatics Canada, Natural Resources Canada.

4. All the spatial information is now based on the North American Datum of 1983 (NAD83).

Note 1: The Federal Electoral Districts (2003 Representation Order) Cartographic Boundary File for Canada contains the boundaries of all 308 federal electoral districts based on the 2001 Census geographic infrastructure except where the blocks needed to be split (See appendix C). Because of this parts of this file will not match the 2001 geography. A federal electoral district (FED) is an area represented by a member of the House of Commons.

Note 2: Cartographic Boundary Files are available for the following **standard** levels of geography[1]:

*   **provinces** and **territories** (Catalogue number 92F0160XCE)
*   **federal electoral districts** (using 1996 Representation Order) (92F0163XCE)
*   **federal electoral districts** (using 2003 Representation Order) (92F0194GIE)
*   **census divisions** (92F0161XCE)
*   **economic regions** (92F0161XCE)
*   **census consolidated subdivisions** (92F0167XCE)
*   **census subdivisions** (92F0162XCE)
*   **census metropolitan areas** / **census agglomerations** (92F0166XCE)
*   **census tracts** (92F0168XCE)
*   **urban areas** (92F0164XCE)
*   **designated places** (92F0165XCE)
*   **dissemination areas** (new for 2001) (92F0169XCE)

---

[1] In the Reference Guide supporting the Cartographic Boundary Files, the terms standard geography level or standard geographic units are used to refer to the geography levels defined in the *Standard Geography Classification* and geography levels established primarily for the purpose of collecting and disseminating Census data. A diagram illustrating the hierarchy of standard geography levels is included in *Appendix A* of this guide.

The user guide for the Cartographic Boundary Files, 2001 Census, Second edition catalogue Number 92F0171GIE can be accessed trough the following link:

\\Geodepot\Geographie_2001_Geography\Geographic_Ref_Products-Produits_de_réf_géographique\Documentation\Reference_Guides_de_référence\92F0171GIE CBF.pdf

Table of Contents

1.   About this guide

This Reference Guide is intended for users of the Federal Electoral Districts (2003 Representation Order) Cartographic Boundary File.

The **Overview** section provides information related to the product, including a description of the product.

The next section focuses on the Federal Electoral Districts (2003 Representation Order) Cartographic Boundary File, with three sub-sections: **Content**, **Data quality**, and **Technical specifications**. The content and technical specifications of the product are described in the following terms: number of geographic units, number of polygons, format of the geographic codes, and record layout. Also, a description of method of derivation or data quality considerations specific to the file is included.

The data quality statement provides information to evaluate the suitability of the data for a particular use. Technical specifications include system requirements, installation guidelines, record layout and file sizes (in bytes). In this section, the choice of lower and upper case letters for file names and record layout description may not correspond to the actual combination of upper and lower case in the product. The file sizes may differ slightly from what is indicated in the relevant table.

The glossary provides geographic terms and concepts in summary form only. More details can be found in the *2001 Census Dictionary* (Catalogue No. 92-378-XIE).

This Reference Guide does not provide details on specific software packages available to use with the Federal Electoral Districts (2003 Representation Order) Cartographic Boundary File. Users are advised to contact the appropriate software vendor for information. Please contact your nearest Regional Reference Centre for information.

This Reference Guide is based on the best information available at the time of its release. It in no way constitutes a warranty of the data in the event that users may observe characteristics that deviate from those stated in this document. All efforts have been made to ensure that the verification of this product has been thoroughly done, however, there is no guarantee that the data are 100% accurate.

2.   Overview

**The Federal Electoral Districts (2003 Representative Order)
Cartographic Boundary File**

The Federal Electoral Districts (2003 Representative Order) Cartographic Boundary File is a product containing the boundaries of the 308 federal electoral districts based on the 2001 Census geographic infrastructure (except where blocks have been split) together with the shoreline around Canada. A separate file will be provided with large inland lakes and double line rivers. The lakes and shorelines will hereafter be referred to as hydrography. The **coordinates** are latitude / longitude and are based on the North American Datum of 1983 (NAD83).

Reference date

The geographic reference date is a date determined by Statistics Canada to finalize the geographic framework for which census data will be collected, tabulated and reported. The geographic reference date for the 2001 Census, is January 1, 2001.

3.   How to use this product

Purpose of the Product

The Cartographic Boundary File (CBF) was created to support the spatial analysis and thematic mapping of data from the 2001 Census of Population, where realistic shorelines are required. This product can also be used with Census of Agriculture or other Statistics Canada data for data analysis and thematic mapping.

With the appropriate computer software, the Cartographic Boundary File provides the framework for thematic mapping to support applications such as land use and demographic studies, or social, economic and market research. Geographic identifiers provide the linkage between the statistical data and the geographic area boundaries The Cartographic Boundary File is positionally consistent with the **Road Network Files** and **Skeletal Road Network Files**, which can provide additional geographic context for mapping applications.

The Cartographic Boundary File was created for thematic mapping – particularly choropleth mapping of Census data. The shorelines were integrated with the boundaries to enable users to more easily shade the land polygons. Supplementary hydrography is also available to support the mapping of inland lakes, oceans and land outside the landmass of Canada. The boundaries of the Cartographic Boundary Files include shoreline around Canada and the shoreline of larger inland water bodies within Canada (i.e. Great Lakes).

Limitations

The positional accuracy of the Cartographic Boundary File does not support cadastral, surveying or engineering applications.

The source data used to create the product carried a wide range of different scales. Therefore, the Cartographic Boundary File will not be precise if plotted at a larger scale than the scale of the source material used in their creation. In particular, the shorelines originally digitised at a scale of 1:1,000,000 (outside census metropolitan areas and census agglomerations) will not support large-scale mapping.

The Cartographic Boundary File is recommended for local and regional scale mapping. Boundaries can be mapped at scales ranging from 1:1,000,000 to 1:5,000,000 as well as 1:250,000.

General methodology

Creation of the hydrography layer
Water polygons from both the National Topographic Data Base (1:50,000 and the 1:250,000 maps) and National Atlas (GeoBase hydrology Level 0) were chosen for the hydrography layer. The hydrography was generalized by removing small lakes from the file to reduce noise. Large rivers emptying into the oceans were closed off, and then the interior hydrography (double line river and lake polygons) was extracted to create the supplementary hydrography.

Creation of the basic boundary file
A basic boundary layer (without hydrography) was created from the **National Geographic Base** (NGB). This digital file consists of polygons with identification codes for upper level geographic areas.

Using information from Elections Canada, a file was created linking every 2001 block with a unique FED 2003 identification code. This FED 2003 code was appended to the attributes of the digital boundary file of the 2001 blocks. The blocks in the same FED 2003 were aggregated to create one FED 2003 polygon per federal riding, for a total of 308 polygons in the file.

Using further information from Elections Canada (a list of which blocks needed to be split, and the new boundaries for those blocks), the boundary file was manually edited to match the new boundaries as defined by Elections Canada. These new boundaries may not have any relationship to any other information on the NGD. (National Geographic Database)

Creation of the boundaries for the CBF
Using the CBF for the Provinces/Territories 2001, the basic boundary layer was clipped to the shorelines.

Attribute information for the CBF
Additional information such as the name of each FED 2003 was included in the boundary file. This information was provided by Elections Canada.

Finally, the file was verified, translated, and labelled.

Content

The Federal Electoral Districts (FED) Cartographic Boundary File (CBF) for Canada contains the boundaries of all 308 federal electoral districts based on the 2001 Census geographic infrastructure except where blocks were split, see Appendix C. A federal electoral district is an area represented by a member of the House of Commons. The federal electoral district boundaries for this product are based on the 2003 Representation Order.

The Federal Electoral Districts cartographic boundary file consists of polygons representing the federal electoral district. Every polygon encoded as a Federal Electoral District (2003 Representation Order) has a FEDuid (a code to uniquely identify each federal electoral district) associated with it. The Federal Electoral Districts cartographic Boundary File is available at the national level only. The Federal Electoral Districts Boundary File consists of polygons representing 308 Federal Electoral Districts. There are more polygons than Federal Electoral Districts primarily because of the additional polygons needed to represent islands.

A breakdown of the number of Federal Electoral Districts and polygons by province / territory are provided below for the Federal Electoral District Cartographic Boundary File:

Province / Territory	Number of FED	Number of Polygons	Number of FED in more than one polygon
Canada	308	5 311	64
Newfoundland and Labrador	7	643	6
Prince Edward Island	4	17	3
Nova Scotia	11	156	9
New Brunswick	10	57	6
Quebec	75	414	7
Ontario	106	239	22
Manitoba	14	14	0
Saskatchewan	14	14	0
Alberta	28	28	0
British Columbia	36	416	8
Yukon Territory	1	9	1
North West Territories	1	264	1
Nunavut	1	3 040	1

4.   Data Quality

Spatial data quality elements provide information on the fitness-for-use of a spatial database by describing why, when and how the data are created, and how accurate the data are. The elements include an overview describing the purpose and usage, as well as specific quality elements reporting on the lineage, positional accuracy, attribute accuracy, logical consistency and completeness. This information is provided to users for all spatial data products disseminated for the census.

Lineage

Describes the history of the spatial data, including descriptions of the source material from which the data were derived, and the methods of derivation. It also contains the dates of the source material, and all transformations involved in producing the final digital files or map products.

Aggregating polygons from a layer of geographic information created the Federal Electoral Districts (2003 Representative Order) Cartographic Boundary File. Please see Appendix B for details on this process.

Positional accuracy

Refers to the absolute and relative accuracy of the positions of geographic features. Absolute accuracy is the closeness of the coordinate values in a dataset to values accepted as or being true. Relative accuracy is the closeness of the relative positions of features to their respective relative positions accepted as or being true. Descriptions of positional accuracy include the quality of the final file or product after all transformations.

The boundaries are derived from the National Geographic Base (NGB). The data in the National Geographic Base is stored in double precision. However, the positional accuracy of the features in the National Geographic Base varies. The data storage precision allows features that are next to each other on the ground to be placed in the correct position on the map, relative to each other, without overlap.

The positional accuracy of the Cartographic Boundary Files is based on the positional accuracy of the source material used in its production (the NGB, the National Atlas GeoBase hydrology Level 0 and the National Topographic Data Base). The National Atlas (GeoBase hydrology Level 0) hydrography was used outside the census metropolitan areas and census agglomerations. Some of the smaller inland water polygons were removed from the Cartographic Boundary Files. Please see Appendix B for more information on the production process.

Attribute accuracy

Refers to the accuracy of the quantitative and qualitative information attached to each feature (such as population for an urban area, street name, federal electoral district name and code).

The attribute data associated with the polygons in the Cartographic Boundary File was independently verified against the data provided by Elections Canada.

Logical consistency

Describes the fidelity of relationships encoded in the data structure of the digital spatial data.

Every polygon was verified to have a unique identifier for the Federal Electoral Districts: the FEDuid. Every case where a polygon did not have a unique FEDuid was examined. Some Federal Electoral Districts consisted of a set of polygons that were separated by water bodies. For example, two islands, each a polygon, may belong to the same Federal Electoral District.

Every FEDuid in the FED Cartographic Boundary File was verified to be on the list from Elections Canada as a FEDuid value for the 2003 Representative Order.

The data set was tested to ensure that the size of the polygons was consistent with the geographic units being represented. Specifically, very small polygons and sliver polygons were examined. Slivers are defined here as very long, thin polygons.

The following criteria were used to detect slivers:
$$\{(\text{perimeter} \times \text{perimeter}) / \text{area} > 50\} \text{ AND } \{\text{area} < 100{,}000 \text{ m}^2\}$$

Completeness

Refers to the degree to which geographic features, their attributes and their relationships are included or omitted in a dataset. It also includes information on selection criteria, definitions used, and other relevant mapping rules.

The number of federal electoral districts as well as their unique identifiers was verified against the information from Elections Canada.

5.   Technical Specifications

This Cartographic Boundary File consists of two layers of data. The boundaries of the federal electoral districts have been re-defined for thematic mapping purposes by integrating them with the shoreline. Supplementary files for the oceans, Great Lakes, St. Lawrence River, Greenland and bordering United States are available upon request.

File specifications

These are the standard formats in which 2001 Census digital spatial products are available from Geography Division.

Software formats
All products available on CD-ROM for purchase containing digital boundaries and road network information are available in the following formats:
- ARC/INFO® interchange format version 8.3
    ASCII export file
    File extension(s): .e00 (spatial and tabular data)
- MapInfo® interchange format version 7.0
    ASCII export files
    File extension(s): .MIF (graphic data), .MID (tabular data)

Installation instructions

Both the ARC/INFO® and MapInfo® are compressed in self-executable WinZip® files (file extension EXE). Users can uncompress these files by executing them in DOS, or selecting them in Windows® and double clicking on the file icon, or executing them in the RUN dialogue in Windows®.

The geographic area names in the Cartographic Boundary File contain accented characters. These characters can be seen in UNIX and Windows® versions of ARC/INFO® and MapInfo®. (They ware tested on desktop versions of ARC/INFO® 8.3, MapInfo® 7.0. To preserve accents, ArcToolbox® is recommended for importing files into the desktop version of ARC/INFO® 8.3.

File names and sizes

File names are formatted in order to better indicate to the client the source of data, coverage, geographic area, language and file format of the data.

	ARC/INFO®		MapInfo®	
	File name	**File size (MB)**	**File name**	**File size (MB)**
Canada	**gfed000b04a_e**	**12.92**	**gfed000b04m_e**	**8.67**

Geographic representation

- All files distributed by Geography Division are in the North American Datum of 1983 (NAD 83).
- The files are available in the geographic coordinate system (latitude / longitude).
- To make this file useful (i.e. to calculate distance) it must be projected.

Record layout and item description

Federal Electoral Districts (2003 representation order) record layout:

The following table shows the format of the attributes contained on the boundary files.

Item Name	Width	Output	Type	Decimals
<File Name># [1]	4	5	B	0
<File Name>-ID [1]	4	5	B	0
FEDname	60	60	C	-
FEDuid	5	5	C	-
PRuid	2	2	C	-

[1] Items included with ARC/INFO® Interchange files only

Item Description:

Item	Description
<File Name>#	maintained by ARC/INFO® for internal processing (item not included in MapInfo® files)
<File Name>-ID	maintained by ARC/INFO® for internal processing (item not included in MapInfo® files)
FEDname	the official federal electoral district name
FEDuid	uniquely identifies a federal electoral district (composed of the 2-digit province code and the 3-digit federal electoral district code, 2003 Representation Order)
PRuid	uniquely identifies a province or territory

6.   Glossary

Block
A block is an area bounded on all sides by roads and / or boundaries of standard geographic areas. Blocks cover all the territory of Canada. The block is the smallest geographic area for which population and dwelling counts are disseminated.

Cartographic Boundary File
The Cartographic Boundary File (CBF) contains boundaries of standard geographic areas, along with shorelines and lakes, at a level of detail appropriate for small-scale mapping.

Datum
A datum is a geodetic reference system that specifies the size and shape of the earth, and the base point from which the latitude and longitude of all other points on the earth's surface are referenced.

The spatial data disseminated for the 2001 Census are based on the North American Datum of 1983 (NAD83).

Federal Electoral District
A federal electoral district is any place or territorial area entitled to return a member to serve in the House of Commons. FED legal limits and descriptions are the responsibility of the Chief Electoral Officer, and are usually revised every 10 years after the results of the decennial census. The 2003 Representation Order is the most current revision, and is based on 2001 Census population data.

Geocoding
Geocoding is the process of assigning geographic identifiers (codes) to map features and data records. The resulting geocodes permit data to be linked geographically.

Households and postal codes are linked to block-face representative points when the street and address information is available; otherwise, they are linked to block representative points.

Geographic Code
A geographic code is a unique number used to identify and access standard geographic areas for the purposes of data storage, retrieval and display.

Geographic Reference Date
The geographic reference date is a date determined by Statistics Canada to finalize the geographic framework for which census data will be collected, tabulated and reported. The geographic reference date for the 2001 Census is January 1, 2001.

Map Projection
A map projection is the process of transforming and representing positions from the earth's three-dimensional curved surface to a two-dimensional (flat) surface. The process is accomplished by a direct geometric projection or by a mathematically derived transformation.

The Lambert Conformal Conic map projection is widely used for general maps of Canada at small scales and is the most common map projection used at Statistics Canada.

National Geographic Base
The National Geographic Base (NGB) is a database that contains roads and boundaries of standard geographic areas in one integrated layer with other physical and cultural features (such as hydrography, railroads and power transmission lines) stored as separate layers.

The NGB is an internal maintenance database that is not disseminated. It supports a wide range of census operations, such as geocoding, updating the road network and address ranges, supporting the block program and delineating the boundaries of standard geographic areas (including the automated delineation of enumeration areas, urban areas and dissemination areas). As well, the NGB is the source for generating many geography products for the 2001 Census, such as reference maps and Cartographic Boundary Files.

Road Network Files
The Road Network Files (RNFs) provide national coverage of roads, province / territory boundaries and other visible features such as hydrography, as well as attribute information (for example, street names and address ranges for streets with assigned addresses). The RNFs replace the Street Network Files (SNFs), which were a similar product previously available only for the large urban centres of Canada.

Spatial Data Quality Elements
Spatial data quality elements provide information on the fitness-for-use of a spatial database by describing why, when and how the data are created, and how accurate the data are. The elements include an overview describing the purpose and usage, as well as specific quality elements reporting on the lineage, positional accuracy, attributes accuracy, logical consistency and completeness. This information is provided to users for all spatial data products disseminated for the census.

Thematic Map
A thematic map shows the spatial distribution of one or more specific data themes for standard geographic areas. The map may be qualitative in nature (e.g., predominant farm types) or quantitative (e.g., percentage population change).

Appendix A: Hierarchy of Standard Geographic Units for Dissemination, 2001 Census (FED based on 2003 Representation Order)

[1] Census agricultural regions in Saskatchewan are composed of census consolidated subdivisions.

[2] Economic regions in Ontario are composed of municipalities (census subdivisions).

[3] One CMA and four CAs cross provincial boundaries.

[4] Five UAs cross provincial boundaries.

[5] Designated places do not cover the total area of CSDs. Eighty-two DPLs cross CSD boundaries, of which 13 also cross CD boundaries.

[6] Census **m**etropolitan area and census agglomeration influenced **z**ones (MIZ), dissemination area, block, and locality are new concepts for the 2001 Census.

[7] The Statistical Area Classification (SAC) is a new geographic classification that allocates each CSD according to whether it is a component of a CMA, CA, a census metropolitan area and census agglomeration influenced zone (MIZ), or the territories outside the CAs of Whitehorse and Yellowknife.

[8] For the 2001 Census only, a best fit linkage is created between the 1996 CSDs and 2001 blocks to facilitate historical data retrieval. See the definition of Census Subdivision - Previous Census.

Appendix B: Lineage

The following steps were taken to create the Fed308 CBF.

1. Creation of the basic boundary file

Using information from Elections Canada, a file was created linking every block from the 2001 Census with a unique FED 2003 identification code. This FED 2003 code was appended to the attributes of the digital boundary file of the 2001 blocks. The blocks in the same FED 2003 were aggregated to create one FED 2003 polygon per riding, for a total of 308 polygons in the file.

Elections Canada also provided a list of 401 blocks that needed to be split for the new federal ridings (This list can be found in Appendix C) and a boundary file of the new ridings. A basic boundary file (without hydrography) was manually edited to match the new boundaries in the split blocks, as defined by EC. These new boundaries, for the split blocks, may not have any relationship to any other information on the NGD. In some cases, where the difference between the EC boundary file and the STC boundary file was found to occur only in water (as based on the 2001 hydrography), the STC boundary file was not changed, to keep it as close as possible to a 2001 base. This occurred in seventeen cases in the editing process.

At this point each FED 2003 was a single polygon, except for 3 cases: 12004 Halifax included a polygon for Sable Island; 24019 Gaspésie—Îles-de-la-Madeleine included polygons for the islands; and 24039 Manicouagan was in multiple parts at the Quebec-Labrador border.

2. Creation of the cartographic boundary file

To keep the FED 2003 boundary file as close as possible to other cartographic boundary files that had been disseminated previously by the Geography Division for the 2001 Census, the basic version 2 of the   province/territory CBF was used to clip the FED 2003 as it had the fewest polygons.

Slivers were then removed using these criteria to detect them:
    $\{(\text{perimeter} \times \text{perimeter}) / \text{area} > 50\}$ AND $\{\text{area} < 100,000 \text{ m}^2\}$.

Polygons in the FED 2003 CBF were then aggregated to the provincial/territorial level, and compared to the polygons in the province/territory version 2 CBF. The number of polygons matched exactly.

The FED 2003 CBF was checked for node errors, label errors, and arc intersections, and there were none.

3. Attribute information

At this point the names, in English and French as provided by Elections Canada, were added to the polygon attributes. This file was used to produce the final version of the disseminated CBF by transforming from Lambert Conformal Conic projection into latitude/longitude co-ordinates.

Finally, the file was verified and appropriately labelled.

Appendix C: List of Blocks that were split

PrCdDaDis	PrCdDaDis	PrCdDaDis	PrCdDaDis	PrCdDaDis	PrCdDaDis
1001005503	1007005101	1209000313	4811121101	1209050201	1209044802
1001005509	1007006802	1209000501	4811122101	1209050303	1209045201
1001014004	1007007610	1209000505	4811122112	1209050401	1209045203
1001014009	1008004302	1209000702	4811122415	1209052101	1209045701
1001014108	1008004501	1209000713	4811122501	1209052209	1209045702
1001014109	1008008603	1209000714	4811122801	1209052410	1209046402
1001014111	1207002214	1209001203	4811139206	1209052501	1209046404
1001014112	1207002506	1209006809	4811140013	1209054501	1209046405
1001014202	1207002604	1209007202	4812010304	1209054502	1209046406
1001014902	1207002611	1209007701	4812010307	1217002505	1209046501
1001019001	1207004601	1209008101	4818002402	1217006601	1209047003
1001028601	1207004606	1209008102	5903009401	1217006602	1209047105
1001028701	1207004706	1209008402	5915011101	1217011213	1209047201
1001031101	1207004711	1209008706	5915011902	1217011214	1209047210
1001035807	4809003310	1209009702	5915087401	1305001401	5915317601
1003005502	4809004507	1209012007	5915088401	1305001404	5917003101
1005006602	4809004511	1209012611	5915173501	1305001406	5917025703
1005006606	4810000101	1209012612	5915226103	1305001408	5917025704
1005006802	4810000201	1209012613	5915277101	1305001410	5917026901
1005006901	4810009909	1209012705	5915277201	1306000101	5921007515
1006001808	4811003021	1209012706	5915288405	1306000102	5921015601
1006001810	4811008101	1209012707	5915288901	1306000403	5921015706
1006001826	4811008201	1209012708	4811120904	1306000703	5933020502
1006002101	4811013810	1209012715	5953018706	1306002803	5933020503
1006002103	4811013814	1209012807	5953018604	1306002903	5933020507
1006004002	4811049422	1209012810	3530010709	1307017502	5933021405
1006004005	4811055822	1209019302	3530010905	1314001001	5933021601
1006004007	4811056201	1209037304	3530013502	1314001115	5933021618
1006004033	4811056507	1209038601	3530013504	1315015105	5933021824
1007002605	4811097205	1209038602	3530013604	1315015106	5933021825
1007004004	4811098401	1209038701	3530056304	1315015108	5945002002
1007004103	4811099201	1209040001	3530057010	2423006602	5953014714
1007004107	4811099401	1209040002	3530057105	2423015201	5953014715
1007004108	4811120501	1209043402	3530057204	2423015209	5953018602
4809003308	4809001103	4611043807	4611040601	4611040501	4611040103

PrCdDaDis	PrCdDaDis	PrCdDaDis	PrCdDaDis	PrCdDaDis	PrCdDaDis
2459008001	2423084101	3520278301	3530057205	4611065901	4611023222
2465003701	2423087401	3520324401	3530057208	4611065902	4611023223
2465031701	2423087402	3520353201	3539039307	4611089802	4611023225
2465045605	2423087501	3520353203	3548009301	4611090403	4611023226
2465045701	2423088305	3520380401	3548010408	4611093701	4611036102
2465046401	2442003904	3521071905	3548010412	4611093702	4809000212
2465046402	2443010501	3521072101	3552000213	4611093703	4809000214
2465048301	2443010713	3525002603	3552000214	4611098701	4809000514
2465056801	2443010714	3525007001	3552000402	4611110612	4809000516
2465058301	2443021602	3525007101	3552000502	4612001012	4809000518
2466073801	2458013401	3525007102	3552001901	4619003801	4809000521
2466087101	2458013402	3525009701	3553014710	4619004601	4809000523
2466087302	2458013403	3525009702	3556002001	4619005102	4809000529
2466087303	2459003801	3525009901	3556002111	4716013612	4809000530
2466172401	3506116902	3525013801	3556002115	4802023408	4809000531
2466187101	3518020408	3525013802	3556004720	4804002023	4809001033
2466187102	3518054509	3525013803	3556004804	4804002402	
2466187103	3520046801	3525013804	3556009002	4805006842	
2466192301	3520046901	3525013901	3556017902	4805007002	
2466215901	3520052701	3525013902	3556017924	4805007101	
2466267101	3520053703	3525014101	3557002501	4806022003	
2466270701	3520053801	3525014201	3557002504	4806064012	
2466273003	3520056001	3525019902	3557021309	4806064301	
2466276201	3520083409	3525026810	3557021310	4806066201	
2466283901	3520186801	3525049903	3557021311	4806084401	
2466283912	3520243301	3525049905	3557027001	4806090011	
2466284604	3520254701	3525051401	3558000205	4806090102	
2466284610	3520258401	3525057511	3558002902	4806090114	
2466296402	3525079301	3525065401	3558011105	4806092407	
2466297402	3525079310	3525065402	4601001506	4806145321	
3506000402	3525079314	3525065403	4602004603	4806152001	
3506085818	3530010702	3525075701	4602004604	4809000203	
3506085819	3530010703	3525077501	4609000205	4809000205	
3506093809	4611061801	3525078701	4611022702	4809000206	
4611040101	4611039901	4611039701	4611022803	4809000210	

References

McNiven, C., H. Puderer and D. Janes. 2000. *Census Metropolitan Area and Census Agglomeration Influence Zones (MIZ): A Description of the Methodology.* Geography Working Paper Series No. 2000-2. Geography Division. (Statistics Canada Catalogue No. 92F0138MPE). Ottawa: Minister responsible for Statistics Canada.

McNiven, C. and H. Puderer. 2000. *Delineation of Canada's North: An Examination of the North–South Relationship in Canada.* Geography Working Paper Series No. 2000-3. Geography Division. (Statistics Canada Catalogue No. 92F0138MPE). Ottawa: Minister responsible for Statistics Canada.

Mendelson, R. 2001. *Geographic Structures as Census Variables: Using Geography to Analyse Social and Economic Processes.* Working Paper Series No. 2001-1. Geography Division. (Statistics Canada Catalogue No. 92F0138MPE). Ottawa: Minister responsible for Statistics Canada.

Puderer, H. 2000. *Introducing the Dissemination Area for the 2001 Census.* Geography Working Paper Series No. 2000-4. Geography Division. (Statistics Canada Catalogue No. 92F0138MPE). Ottawa: Minister responsible for Statistics Canada.

Rambeau, S. and K. Todd. 2000. *Census Metropolitan Area and Census Agglomeration Influenced Zones (MIZ) with Census Data.* Geography Working Paper Series No. 2000-1. Geography Division. (Statistics Canada Catalogue No. 92F0138MPE). Ottawa: Minister responsible for Statistics Canada.

Statistics Canada. 2000. "Policy on Informing Users of Data Quality and Methodology." Approved March 31, 2000. *Policy Manual.* Ottawa: Minister responsible for Statistics Canada. http://dissemination.statcan.ca/english/concepts/inform.htm

———.2002a. *2001 Census Dictionary.* 2001 Census of Canada. (Statistics Canada Catalogue No. 92-378-XPE). Ottawa: Minister responsible for Statistics Canada.

———.2002b. *2001 Census Handbook.* 2001 Census of Canada. (Statistics Canada Catalogue No. 92-379-XPB). Ottawa: Minister responsible for Statistics Canada.

———.2002c. *Population and Dwelling Counts.* 2001 Census of Canada. (Statistics Canada Catalogue no. 93-360-XPB). Ottawa: Minister responsible for Statistics Canada.

———.2002d. *Standard Geographical Classification, Volume I.* 2001 Census of Canada. (Statistics Canada Catalogue no. 12-571-XPB). Ottawa: Minister responsible for Statistics Canada.

———.2002e. *Standard Geographical Classification, Volume II.* 2001 Census of Canada. (Statistics Canada Catalogue no. 12-572-XPB). Ottawa: Minister responsible for Statistics Canada.

Weiss, C. and A. Akuoko-Asibey. 1998. *Automated Land Area Tests for the 2001 Census: Preliminary Results Using the 1996 Digital Cartographic Files.* Geography Working Paper Series No. 1998-1. Geography Division. (Statistics Canada Catalogue No. 92F0138MPE). Ottawa: Minister responsible for Statistics Canada.

Geography products and services

This section provides brief descriptions of Geography products and services related to the 2001 Census. For additional details, consult the nearest Statistics Canada Regional Reference Centre.

1.   Reference Maps

Reference maps show the location of the geographic areas for which census data are tabulated and disseminated. The maps display the boundaries, names and codes of standard geographic areas, as well as major cultural and physical features, such as roads, railroads, coastlines, rivers and lakes. Over 5,600 reference maps are available for the 2001 Census. Given the diversity in size of these geographic areas, different map scales and map coverages are required to show the appropriate level of detail. Descriptions of each series are provided with the individual catalogue entries below.

National Reference Maps

92F0172XCB Reference Maps – Complete Set, 2001 Census
92F0144XIB Census Divisions, 2001
92F0144XIB Economic Regions and Census Divisions, 2001
92F0144XIB Census Metropolitan Areas and Census Agglomerations, 2001
92F0144XIB Statistical Area Classification, 2001 Census Subdivisions
92F0152XPE Federal Electoral Districts (1996 Representation Order) Reference Map

92F0149XPB Census Division and Census Subdivision Reference Maps

The set of Census Division and Census Subdivision Reference Maps covers all of Canada, by province and territory. The maps show the boundaries, names and codes of census divisions (such as counties and regional districts) and census subdivisions (such as cities, towns, villages, other local municipal entities, townships and Indian reserves). The maps also show the boundaries of census metropolitan areas and census agglomerations. There are 22 maps that vary in scale (ranging from 1:310,000 to 1:3,500,000).

92F0145XPB Census Tract Reference Maps, by Census Metropolitan Area or Census Agglomeration

The series of Census Tract Reference Maps covers all 27 census metropolitan areas (CMAs) and the 19 census agglomerations (CAs) with census tracts. The maps show the boundaries and names of census tracts and census subdivisions, as well as the urban core, urban fringe and rural fringe within the CMAs or CAs. The maps include background information such as rivers, lakes, railroad tracks and provincial boundaries, and other significant features. There are 85 maps in the series, with one to four maps covering each CMA or CA. The map scales range from 1:25,000 to 1:2,000,000, and the maximum map dimensions are approximately 91 cm by 101 cm (36 inches by 40 inches).

92F0146XPB Dissemination Area Reference Maps, by Census Tract, for Census Metropolitan Areas and Census Agglomerations.

The set of Dissemination Area Reference Maps by Census Tract covers all 27 census metropolitan areas (CMAs) and the 19 census agglomerations (CAs) that are part of the census tract program. Each map in the set covers one census tract (CT) and shows the boundaries and codes of dissemination areas within that CT. The maps also show census tract, census subdivision, and census metropolitan area or census agglomeration boundaries on a background of detailed street networks and other visible features such as rivers, lakes and railroad tracks.

There are approximately 4,800 maps in this set—generally one map per census tract. The dimensions of each map are approximately 27 cm by 43 cm (11 inches by 17 inches).

92F0147XPB Dissemination Area Reference Maps, by non-tracted Census Agglomeration
The set of Dissemination Area Reference Maps by Non-tracted Census Agglomeration covers the smaller census agglomerations that are not part of the census tract program. Each map in the set covers one census agglomeration (CA) and shows the boundaries and codes of dissemination areas within that CA. The maps also show the boundaries of census subdivisions (municipalities), as well as urban areas, and representative points for designated places. The maps include background information such as rivers, lakes, railroad tracks and provincial boundaries, and other significant features.

There are approximately 100 maps in this set—generally one map per census agglomeration (The maps vary in scale and size; the maximum map dimensions are approximately 91 cm by 101 cm (36 inches by 40 inches).

92F0148XPB Dissemination Area Reference Maps, by Census Division, for Areas Outside Census Metropolitan Areas and Census Agglomerations. The set of Dissemination Area Reference Maps by Census Division covers areas outside census metropolitan areas (CMAs) and census agglomerations (CAs). Each map in the set covers one census division (CD) and shows the boundaries and codes of dissemination areas within that CD. The maps also show the boundaries of census subdivisions, census metropolitan areas and census agglomerations, as well as urban areas and representative points for designated places. The maps include background information such as rivers, lakes, railroad tracks and provincial boundaries, and other significant features.

2.   Geographic Data Products
Geographic data products are those that contain 2001 Census population and dwelling counts.

93-360-XPB National Overview Tables, 2001 Census
The National Overview tables provide population and dwelling counts established by the 2001 Census of Canada. The levels of geography covered are Canada, provinces and territories, and other geographic areas including census subdivisions (municipalities), census metropolitan areas and census agglomerations. For selected geographies, the tables provide percentage change in the population and dwellings between 1996 and 2001. Data are also provided for land area and population density. Geographic Boundaries are those in effect on January 1, 2001.

92F0150XCB GeoSuite, 2001 Census
GeoSuite is a tool for data retrieval, query and tabular output, with software and data on a CD-ROM. GeoSuite allows users to explore the links between all standard levels of geography and to determine geographic codes, names, and population and dwelling counts. GeoSuite includes a dissemination area (DA) reference map listing that facilitates identification of appropriate DA reference maps.

3.   Spatial Information Products
Spatial information provides the shape and location of geographic features. The boundaries, road network and other features of standard geographic areas are available in digital form for mapping and geographic information system (GIS) applications. These products include Cartographic Boundary Files (CBFs), Road Network Files (RNFs) and Skeletal Road Network Files (SRNFs).

Cartographic Boundary Files (CBFs), 2001 Census

Cartographic Boundary Files (CBFs) contain the boundaries of standard geographic areas together with the shoreline around Canada and the larger inland lakes, all integrated in a single layer. The coordinates are latitude / longitude and are based on the North American Datum of 1983 (NAD83). The Cartographic Boundary Files for 2001 replace the Digital Cartographic Files produced for the 1996 Census.

Cartographic Boundary Files can be used with Census of Population, Census of Agriculture or other Statistics Canada data for data analysis and thematic mapping (with appropriate software). Geographic codes provide the linkage between the statistical data and the geographic area boundaries. CBFs can also be used to create new geographic areas by aggregating standard geographic areas, and for other data manipulations available with the user's software. The CBFs can be used with the Road Network Files and Skeletal Road Network Files, which provide additional geographic context for mapping applications.

    92F0160XCE Provinces and Territories Cartographic Boundary File
    92F0163XCE Federal Electoral Districts (1996 Representation Order) Cartographic Boundary File
    92F0161XCE Census Divisions and Economic Regions Cartographic Boundary File
    92F0167XCE Census Consolidated Subdivisions Cartographic Boundary Files
    92F0162XCE Census Subdivisions Cartographic Boundary Files
    92F0165XCE Designated Places Cartographic Boundary File
    92F0166XCE Census Metropolitan Areas / Census Agglomerations Cartographic Boundary File
    92F0168XCE Census Tracts Cartographic Boundary Files
    92F0164XCE Urban Areas Cartographic Boundary File
    92F0169XCE Dissemination Areas Cartographic Boundary Files

92F0159XCE Population Ecumene Census Division Boundary File, 2001 Census

The Population Ecumene Census Division Boundary File contains a generalized population ecumene based on 2001 Census population density data with at least one ecumene polygon for every census division (CD). It can be used to produce small-scale thematic maps of statistical data.

For the 2001 Census, a population ecumene was defined based on population density criteria at the block level. The resulting detailed population ecumene polygons were generalized and small, non-contiguous ecumene pockets were aggregated to ensure visibility for small-scale thematic mapping at the census division level. When ecumene boundaries are used for dot and choropleth mapping, they give a more accurate depiction of the spatial distribution of data within standard geographic areas.

The Population Ecumene Census Division Boundary File is available as a standard package for Canada free on the Internet or it can be purchased on CD-ROM through the nearest regional office. This file is not a Cartographic Boundary File and it has its own reference guide.

4.   Attribute Information Products

Attribute information products are those that give descriptive information about the features. The attribute files include Postal Code Conversion File (PCCF) and Postal Code by Federal Ridings File (PCFRF).

92F0027XCB Postal Code Conversion File (PCCF)
The Postal Code Conversion File (PCCF) provides a link between six-character postal code and standard 1996 Census geographic areas (such as enumeration areas, municipalities, census tracts). It also provides the x, y (latitude / longitude) coordinates for a point representing the approximate location of the postal code to support mapping. The PCCF is available as standard packages for Canada, the provinces and territories, census metropolitan areas (CMAs) and some census agglomerations (CAs). A reference guide is included.

92F0027UDB Postal Code Conversion File (PCCF) – Update
The Postal Code Conversion File (PCCF) is updated with new postal codes on a semi-annual basis and is available in January and July. Clients must purchase the Postal Code Conversion File at the initial price; then subsequent updated files (92F0027UDB) may be purchased at the update or subscription rate. The update rate is a flat rate that in most cases is much lower than the initial purchase price. An additional 25% discount on updates is given to PCCF update subscribers. The subscription requires clients to pay in advance for at least one updated file per year until the PCCF reflecting the geography of the 2001 Census is released. The PCCF Updates are available as standard packages for Canada and the provinces and territories. A reference guide is included.

92F0028XDB Postal Codes by Federal Ridings (1996 Representation Order) File
The Postal Codes by Federal Ridings File (PCFRF) provides a link between the six character postal codes and the federal electoral districts (1996 Representation Order). A federal electoral district (FED), commonly referred to as a federal riding, is an area represented by a Member of Parliament in the House of Commons.

The PCFRF is intended as a tool for use with administrative files containing postal codes. By using the postal code as a link, data from administrative files may be organised and / or tabulated by federal riding. This PCFRF allows a link of more than 680,000 postal code records to the 301 federal electoral districts. The PCFRFs are available as standard packages for Canada and five regions. A reference guide is included.

92F0028UDB Postal Codes by Federal Ridings (1996 Representation Order) File (PCFRF) – Update
The Postal Code by Federal Ridings File (PCFRF) is updated with new postal codes on a semi-annual basis and is available in January and July. Updates released in July provide new postal codes effective January of the release year. Updates released in January provide new postal codes in use in July of the previous year. Clients who purchase the PCFRF (92F0028XDB) at the initial price may then purchase subsequent updated files (92F0028UDB) at the update rate (see Table 13 for details). The PCFRF Updates are available as standard packages for Canada and five regions.

92F00153UCE Postal Code Conversion File (PCCF) – Update
The Postal Code Conversion File (PCCF) is updated with new postal codes on a semi-annual basis and is available in January and July. Clients must purchase the PCCF at the initial price; then subsequent updated files may be purchased at the update or subscription rate. The update rate is a flat rate that in most cases is much lower than the initial purchase price. An additional 25% discount on updates is given to PCCF update subscribers. The subscription requires clients to pay in advance for at least one updated file per year until the PCCF reflecting the geography of the 2006 Census is released. The PCCF updates are available as standard packages for Canada, the provinces and territories. A reference guide is included.

92F0153XCE Postal Code Conversion File (PCCF)
The Postal Code Conversion File (PCCF) provides a link between the six-character postal code and the standard 2001 Census geographic areas (dissemination areas, municipalities, census tracts, etc.). It also provides the XY co-ordinates for a point representing the approximate location of the postal code to support mapping. A reference guide is included. The PCCF is updated on a semi-annual basis. Updates released in July provide new postal codes as of January of the release year. Updates released in January provide new postal codes as of July of the previous year. Clients must purchase the PCCF at the initial cost; then subsequent updated files (Catalogue no. 92F0153UCE) may be purchased at the update or subscription rate.

92F0193XCB Postal Codes by Federal Ridings (2003 Representation Order) File
The Postal Codes by Federal Ridings File (PCFRF) provides a link between the six-character postal code and Canada's federal electoral districts (2003 Representation Order). A federal electoral district (FED) is any place or territorial area entitled to return a Member of Parliament (MP) to serve in the House of Commons and is commonly referred to as a federal riding. The PCFRF is intended as a tool for use with administrative files containing postal codes. By using the postal code as a link, data from administrative files may be organized and/or tabulated by federal riding. This PCFRF allows a link of more than 700,000 postal code records to the 308 federal electoral districts (2003 Representation Order). Semi-annual updates (92F0193UCB) are available in January and July. Updates released in July provide new postal codes as of January of the release year. Up dates released in January provide new postal codes as of July of the previous year. A reference guide is included.

5.   Geographic Services
A variety of services is available, including custom mapping, custom data extraction (geocoding) and the development of custom geography products.

97C0006 Geography Custom Service
If standard geography products do not satisfy a client's needs, the Geography Custom Service is available to produce non-standard geographic products. Examples include alternative packaging of geographic files, special data retrievals, manipulations or merges using any of the geography computer files (postal codes, attribute files, boundary files and road network files). Contact the nearest regional office for details.

97C0005 Custom Area Creation Service (formerly Geocoding Service)
The Custom Area Creation Service (formerly called Geocoding Service) allows users to define their own geographic areas of study (user-defined areas or aggregations of standard census geographic areas) for census data tabulations. This custom geography is produced from the aggregation of blocks, or where necessary, block-faces within the road network file coverage. The custom area files thus created are then passed to Census for data tabulation. Contact the nearest regional office for details.

97C0007 Geography Custom Mapping
Thematic maps and other maps, specially designed to meet customer needs, can be produced. Contact the nearest regional office for details.

End-Use Licence Agreement

COPYRIGHT

The Government of Canada (Statistics Canada) is the owner or a licensee of all intellectual property rights (including copyright) in this data product. In consideration of your payment of the requisite fee, you or your organisation, as the case may be, (hereinafter referred to as the "licensee") are granted a non-exclusive, non-assignable and non-transferable licence to use this data product subject to the terms below. This license is not a sale of any or all of the rights of the owner(s).

TERMS OF USE

1. All copyright and proprietary notices and all conditions of use associated with the data product must be communicated to all users of the data product.
2. The licensed organisation shall not transfer this data product to or store the data product in any electronic network for use by more than three (3) users unless it obtains prior written permission from Statistics Canada and pays any additional fees.
3. The licensee shall not lend, rent, lease, sub-licence, transfer or sell any part of the data product nor any right granted under this agreement to any person outside the licensed organisation or to any other organisation.
4. The licensee shall not disassemble, decompile or in any way attempt to reverse engineer any software provided as part of the data product.
5. The licensee shall not use any part of the data product to develop or derive any other data product or data service for distribution or commercial sale.
6. The licensee is granted reasonable rights of use of the content of this data product only for personal, corporate or public policy research, as well as for educational purposes. This permission includes the use of the content in analyses and the reporting of results and conclusions, including the citation of limited amounts of supporting data extracted from the data product in such documents. In such cases, the source of the data must be acknowledged in all such documents and communications by providing the following source citation at the bottom of each table and graph:
   Source (or *"Adapted from"*, if appropriate)*: Statistics Canada, name of product, catalogue number of product, reference date of* product.
7. The Licensee shall obtain approval from Statistics Canada, before publishing any significant volumes of material extracted from the data product in any medium.
8. Any violation of this license renders it void and of no effect. This agreement will terminate automatically without notice if the licensee fails to comply with any term of this agreement. In the event of termination, the licensee must immediately return the data product to Statistics Canada or destroy it and certify this destruction in writing to Statistics Canada.

WARRANTIES AND DISCLAIMERS

This data product is provided "as-is", and Statistics Canada makes no warranty, either express or implied, including but not limited to, warranties of merchantability and fitness for a particular purpose. In no event will Statistics Canada be liable for any direct, special, indirect, consequential or other damages however caused.

ACCEPTANCE OF TERMS

It is *YOUR RESPONSIBILITY* to ensure that your use of this data product complies with these terms and to seek prior written permission from Statistics Canada for any uses not permitted or not specified in this agreement. Any infringement of Statistics Canada's rights may result in legal action.

ANY USE WHATSOEVER OF THIS DATA PRODUCT SHALL CONSTITUTE YOUR ACCEPTANCE OF THE TERMS OF THIS AGREEMENT.

For further information please contact:
Licensing Services
Marketing Division, Statistics Canada
R.H. Coats Building, 9th floor, section A
Ottawa, Ontario K1A 0T6, Canada
E-mail: licensing@statcan.ca
Telephone: (613) 951-1122
Fax: (613) 951-1134

© Statistics Canada, 2002