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Census Agricultural Regions Boundary File
2001 Census of Agriculture
Second Edition - Reference Guide

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Statistics Canada

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Reference Guide

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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.

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What's new?

Second edition

- The Census Agricultural Regions Boundary File is available free on the Internet and includes a reference guide.

- The hydrography was generalized by removing all rivers and all but the largest inland lakes from the file. The Great Lakes and these very large inland lakes were integrated into the Census Agricultural Regions (CAR) boundary layer.

- The provincial/territorial boundaries were incorporated into the CAR boundary layer.

- A nine-digit code that uniquely identifies each census agricultural region was added as an attribute. It also provides a link to the data in the Beyond 20/20 tables in the free 2001 Census of Agriculture data products available on the Internet at www.statcan.ca (or available on CD-ROM for a fee).

First edition

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

- Consistency with the Road Network Files for all of Canada; the roads in the Road Network Files can be used to reference all the boundaries in the Census Agricultural Regions Boundary File.

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

Table of Contents

1. About this guide

This guide describes the content, uses and technical specifications for the 2001 Census Agricultural Regions Boundary File, and includes notes on the data quality and general methodology used to create it.

Geographic terms and concepts highlighted in **bold** in the text are described in the glossary. More details can be found in the *2001 Census Dictionary*, Catalogue No. 92-378-XIE. Supplementary information is provided in the appendices and a list of related products and services is also included.

This Reference Guide does not provide details on specific software packages available to use with the Census Agricultural Regions Boundary File. Users are advised to contact the appropriate software vendor for information. Please contact your nearest Regional Reference Centre for further 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 guaranty that the data are 100% accurate.

2. Overview

The Census Agricultural Regions Boundary File

This **cartographic boundary file** for Canada contains the boundaries of all 82 census agricultural regions (see the Content subsection for a definition) delineated for the 2001 Census of Agriculture, integrated with the shoreline around Canada, the Great Lakes and the larger inland lakes into a single layer.

The Census Agricultural Regions Boundary File **coordinates** are latitude/longitude and are based on the North American Datum of 1983 (NAD83). The file is available in ARC/INFO® interchange format or MapInfo® interchange format and may be downloaded free of charge from the Statistics Canada web site (www.statcan.ca). Please see the Technical specifications (section 5) for more details on record layouts and file formats.

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 Censuses of Population and Agriculture, and therefore for the geographic area boundaries in the Census Agricultural Regions Boundary File, is **January 1, 2001**.

3. How to use this product

Purpose of the product

The Census Agricultural Regions Boundary File was created to support the spatial analysis and thematic mapping of 2001 Census of Agriculture data when realistic shorelines are required.

With the appropriate computer software, the CAR boundary file provides the framework for thematic mapping — particularly choropleth mapping. The shorelines have been integrated with the boundaries to enable users to shade the land polygons more easily. Geographic identifiers provide the linkage between the statistical data and the geographic area boundaries. The CAR boundary file is positionally consistent with the **Road Network Files** and **Skeletal Road Network Files**, which can provide additional geographic context for mapping applications.

Using the Census Agricultural Regions Boundary File with other boundary files

When considering how to use the Census Agricultural Regions Boundary File, users should be aware of the compatibility of this file with other spatial information files. Some of the mapping products available are:

Agricultural Ecumene Census Division Boundary File on the Statistics Canada Internet site
The Agricultural **ecumene** boundary file contains generalized ecumene boundaries and major water features. It is suitable for **thematic mapping** at a small-scale when displaying statistical data aggregated to the census division level.

The 2001 Agricultural Ecumene Census Division Boundary File is **not positionally consistent** with the CAR boundary file. The CAR boundary file is recommended for thematic mapping and visualization of Census of Agriculture data at a more detailed level. ***Users who wish to use the Agricultural ecumene boundary file with the CAR boundary file should consider their positional differences.***

Cartographic Boundary Files
The Geography Division of Statistics Canada has produced and disseminated a series of 10 cartographic boundary file products. Each contains the boundaries relating to a standard geographic level (e.g., **census divisions**) together with the shoreline around Canada. In addition, each product includes a separate file containing supplementary hydrography that supports mapping inland water bodies (i.e., large inland lakes and double-line rivers). While similar in many ways, the CAR boundary file and the cartographic boundary file series are different in two respects: i) the hydrography is much more generalized on the CAR boundary file as all rivers and all but the largest inland lakes have been removed; and ii) the CAR boundaries and hydrographic information have been integrated into a single layer (i.e., single coverage file) on the CAR boundary file.

In deciding which boundary file to use, one should consider which other geospatial data will be used in conjunction with the boundary file.

Limitations

The CAR boundary file will not be precise if plotted at a larger scale than the scale of the source material used in its 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 CAR boundary file is recommended for regional scale mapping. Boundaries can be mapped at scales ranging from 1:1,000,000 to 1:5,000,000.

General methodology

Creation of the boundaries for the Census Agricultural Regions Boundary File
Geography Division's 2001 Census Consolidated Subdivisions Cartographic Boundary File of all 2,446 **census consolidated subdivisions** (CCSs) in Canada, which included a realistic (detailed) shoreline, served as the starting point for creating the CAR boundaries. In all provinces except Saskatchewan, census agricultural regions are defined as groups of one or more adjacent census divisions while census divisions, in turn, are defined as groupings of CCSs. As a result, in these nine provinces the CAR boundaries were created by aggregating the polygons that formed individual census consolidated subdivisions, first to the census division level, and then up to the CAR level. However, in Saskatchewan CARs are not defined as groupings of census divisions but rather as aggregations of census consolidated subdivisions directly. Therefore, in Saskatchewan the CAR boundaries were created by aggregating the polygons forming individual census consolidated subdivisions directly up to the CAR level.

Then, a simple hydrography layer, consisting of the Great Lakes and selected large inland lakes, was integrated into the CAR boundary layer.

Attribute information for the Census Agricultural Regions Boundary File
Four main attributes were associated with the polygons in the CAR boundary file. The CAR name (CARname) and code (CARuid) were obtained from the Census Agricultural Regions Attribute File, which is updated prior to each Census of Agriculture with information from the provinces. The remaining two attributes, the province or territory code (PRuid) and a Census of Agriculture standard geographic area code (AGuid), were both derived from the CARuid field.

Content

The Census Agricultural Regions Boundary File for Canada contains the boundaries of all 82 census agricultural regions delineated for the 2001 Census of Agriculture. A census agricultural region is a sub-provincial geographic area used primarily by the Census of Agriculture for disseminating agricultural statistics. In most provinces, census agricultural regions usually comprise groups of adjacent census divisions. The exceptions are in Saskatchewan, where census agricultural regions are made up of groups of adjacent census consolidated subdivisions that do not necessarily respect census division boundaries, and in Prince Edward Island where each of the three existing census divisions (counties) is treated as a census agricultural region for data dissemination purposes. Census agricultural regions are not defined in Yukon Territory, the Northwest Territories or Nunavut. In the Prairie provinces, census agricultural regions are commonly referred to as crop districts.

The CAR boundary file consists of polygons representing the census agricultural regions. There are many more polygons than census agricultural regions primarily because additional polygons

are needed to represent islands. Every polygon encoded as a census agricultural region has a CARuid (a code to uniquely identify each census agricultural region) associated with it. The CAR boundary file is available at the national level only.

Comparison to the 1996 Census Agricultural Regions Boundary File

The Census Agricultural Regions Boundary File for the 2001 Census of Agriculture includes the following improvements:

- Free Internet access, including a reference guide
- Hydrographic detail (consisting of a detailed shoreline around Canada as well as the Great Lakes and selected large inland lakes) integrated into the census agricultural regions boundary layer
- Provincial/territorial boundaries incorporated into the CAR boundary layer
- Consistency with the Road Network Files for all of Canada, which can be used to reference all the boundaries in the CAR boundary file
- Spatial information based on the North American Datum of 1983 (NAD83)
- A nine-digit code, added as an attribute, uniquely identifies each census agricultural region and provides a link to the data in the Beyond 20/20 tables in the free 2001 Census of Agriculture data products available on the Internet at www.statcan.ca (or available on CD-ROM for a fee).

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.

The 2001 CAR boundary file was created using spatial data from the 2001 Census Consolidated Subdivisions Cartographic Boundary File (see the General Methodology subsection for further details). This cartographic boundary file is one of 10 cartographic boundary file products developed using the following five steps:

Step 1 Creation of the hydrography layer

The hydrography layer was created by integrating National Atlas (GeoBase hydrology Level 0) hydrography outside of census metropolitan areas and census agglomerations and National Topographic Data Base (NTDB) 1:50,000 and 1:250,000 scale hydrography within census metropolitan areas and census agglomerations. No linear features are included in this layer – the layer consists only of polygons.

The layer was then generalized by eliminating the smaller, less important hydrographic features and maintaining only the hydrographic detail considered necessary to depict the boundaries. Large double-line rivers flowing into oceans were closed off to form interior bodies of water. The interior lakes and double-line rivers were then extracted to form separate hydrographic and shoreline layers.

Step 2 Creation of the basic boundary layer

A basic boundary layer (without hydrography) was created from the **National Geographic Base**. This digital file consisted of polygons with identification codes for **dissemination areas, designated places, urban areas and federal electoral districts.** These four identification codes were chosen because all of the Cartographic Boundary Files could be created by aggregation of the dissemination area, designated place, urban area or federal electoral district polygons.

Step 3 Creation of the basic boundary layer with shoreline

Boundaries of the basic boundary layer were integrated with the shoreline layer to create the basic boundary layer with shoreline for the Cartographic Boundary Files. In this layer, the boundaries of standard geographic areas were re-defined using the shoreline. This was done to enable users of the boundary files to map data with a realistic outline.

The boundaries in the base layer were cartographically generalized to reduce the size of the files. The arcs were generalized in order to remove unwanted vertices on straight-line arcs between nodes. Then this layer was verified to ensure all the polygons necessary to

distinguish dissemination areas, designated places and federal electoral districts were present. The verification was done against the boundary information on the National Geographic Base as well as information held in the ORACLE tables of the Query Base.

Finally, the file was verified against the Road Network File to ensure that road arcs did not fall into water bodies. Where discrepancies were found between road and water, the hydrography was corrected.

Step 4: Creation of the boundaries for the Cartographic Boundary Files

Individual boundary files were created by aggregating polygons in the ***Basic Boundary Layer with Shoreline.*** Aggregating polygons that formed individual dissemination areas created dissemination area boundary files. Any boundaries that were not needed to distinguish dissemination areas were removed from the file. The designated places boundary files and the federal electoral district boundary files were also created in the same way from the Basic Boundary Layer with Shoreline.

All other cartographic boundary files, including the Census Consolidated Subdivisions Cartographic Boundary File, were created by aggregating the polygons from the dissemination area boundary files. The process of aggregating dissemination area polygons to the census consolidated subdivision level is described in the following paragraph:

Using the dissemination area code (DAuid) as a link to the Query Base, which is a database containing attribute data maintained by Statistics Canada, the corresponding census consolidated subdivision code (CCSuid) is identified and assigned to each dissemination area polygon. Then, the dissemination area boundaries common to neighboring dissemination areas within the same census consolidated subdivision are "dissolved" or eliminated.

Step 5: Attribute information for the Cartographic Boundary Files

Additional information such as the name and code of each geographic area was obtained from the Query Base and included in the cartographic boundary files. For example, for the census consolidated subdivisions boundary file, the census consolidated subdivision name and code were included as attributes of the CCS polygons.

The files were transformed from Lambert Conformal Conic projection into latitude/longitude coordinates.

Finally, the files were verified, translated into French and English versions and appropriately labeled.

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. 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 CAR boundary file is based on the positional accuracy of the source material used in its production (the National Geographic Base, the National Atlas GeoBase hydrology Level 0 and the National Topographic Data Base). Please see Appendix E for more information on the roads in the National Geographic Base. The larger water bodies from the 1:50,000 and the 1:250,000 maps from the National Topographic Data Base were used to provide reference information within census metropolitan areas and census agglomerations. The National Atlas (GeoBase hydrology Level 0) hydrography was used outside the census metropolitan areas and census agglomerations.

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, census subdivision name and code).

The attribute data associated with the polygons in the CAR boundary file was verified against the data in the Census Agricultural Regions Attribute File.

Logical consistency

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

Every polygon was verified to have a valid identifier for the census agricultural region: the CARuid. Every CARuid in the CAR boundary file was verified to be in the CAR Attribute File and have the correct corresponding AGuid (a code that uniquely identifies a CAR and provides a link to the data in the Beyond 20/20 tables in the 2001 Census of Agriculture data products).

Consistency with other products

The positions of the boundary arcs are generally consistent with those of the Road Network Files and Skeletal Road Network Files. The arcs in the Road Network Files and Skeletal Road Network Files were simplified to remove unnecessary vertices in the straight-line segments (generalized with the option «pointremove»). It is possible for some arcs to differ slightly from those of the National Geographic Base (a few arcs could have been moved by 1 metre).

The hydrography used in the CAR boundary file was created to be consistent with the roads in the road network files. However, boundary arcs in the Road Network Files (designated by ARC_GROUP of “BO”) are those present in the National Geographic Base. This very detailed information, including boundary arcs that for legal reasons are present in the water, were left as they were depicted in the National Geographic Base. However, when mapping the CAR boundary file with the road network files, users should consider not mapping the RNF boundary arcs (ARC_GROUP of “BO”) if they do not want these to fall in the water.

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 census agricultural regions as well as their unique identifiers were verified against the information in the CAR Attribute File.

5. Technical specifications

Software formats

This product is available in the following formats:

- ARC/INFO® interchange format version 8.3
  ASCII interchange file
  File extension(s): .e00 (spatial and tabular data)
- MapInfo® interchange format version 6.5
  ASCII interchange 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 CAR boundary file contain accented characters. These characters can be seen in UNIX and Windows® versions of ARC/INFO® and MapInfo®. To preserve accents, ArcToolbox® is recommended for importing files into the desktop version of ARC/INFO® 8.3.

File naming conventions

The conventions used are:

ARC/INFO®	gcar000b03a_e.e00
MapInfo®	gcar000b03m_e.mif gcar000b03m_e.mid

where g refers to *geographic representation*, car indicates that it is the *census agricultural regions* file, 000 is the three digit code identifying it as a *national* file, b indicates it is a *cartographic boundary* file with detailed coverage, 03 is the date stamp for *year of release*, m or a indicates the *software* and e or f indicates *language of file*. For more information on the file naming conventions, please consult Appendix D.

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	Compressed file size (MB)	File name	Compressed file size (MB)
CAR boundary file	gcar000b03a_e	15.8	gcar000b03m_e	10.6

Geographic representation

- This file is in the North American Datum of 1983 (NAD 83).
- The file is available in the geographic coordinate system (latitude/longitude).
- To make this file more useful (i.e. to calculate distance) it must be projected.

Record layout and item description

Census Agricultural Regions record layout:

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

Item Name	Width	Output	Type	Decimals
AREA[1]	8	18	F	5
PERIMETER[1]	8	18	F	5
<File Name># [1]	4	5	B	0
<File Name>-ID [1]	4	5	B	0
CARname	50	50	C	…
CARuid	4	4	C	…
PRuid	2	2	C	…
AGuid[2]	9	9	C	…
WATER[2]	1	1	I	…

[1] Items included with ARC/INFO® Interchange files only
[2] New for 2001
… Not applicable

Item description:

Item	Description
AREA	area of the polygon - maintained by ARC/INFO® (item not included in MapInfo® files)
PERIMETER	perimeter of the polygon - maintained by ARC/INFO® (item not included in MapInfo® files)
<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)
CARname	the official census agricultural region name
CARuid	uniquely identifies a census agricultural region (composed of the 2-digit province or territory code and the 2-digit census agricultural region code)
PRuid	uniquely identifies a province or territory
AGuid	uniquely identifies any of the standard geographic areas disseminated by the Census of Agriculture (composed of the 2-digit province or territory code, the 2-digit census agricultural region code, the 2-digit census division code and the 3-digit census consolidated subdivision code)
WATER	value of "1" for water and "0" for land

6. Glossary

Adjusted Counts
Adjusted counts refer to previous census population and dwelling counts that have been adjusted (i.e., recompiled) to reflect current census boundaries (such as when a boundary change occurs between two censuses).

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.

Block-face
A block-face is one side of a street between two consecutive features intersecting that street. The features can be other streets, boundaries of standard geographic areas, or limits of map tiles.

Block-faces are used for generating block-face representative points, which in turn are used for geocoding and census data extraction when the street and address information is available.

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

Census Agricultural Region
Census agricultural regions (CAR) are composed of groups of adjacent census divisions. In Saskatchewan, census agricultural regions are made up of groups of adjacent census consolidated subdivisions, but these groups do not necessarily respect census division boundaries.

Census Consolidated Subdivision
A census consolidated subdivision (CCS) is a grouping of adjacent census subdivisions. Generally, the smaller, more urban census subdivisions (towns, villages, etc.) are combined with the surrounding larger, more rural census subdivision, in order to create a geographic level between the census subdivision and the census division.

Census Division
Census division (CD) is the general term for provincially legislated areas (such as county, *municipalité régionale de comté* and regional district) or their equivalents. Census divisions are intermediate geographic areas between the province level and the municipality (census subdivision).

Census Metropolitan Area and Census Agglomeration
A census metropolitan area (CMA) or a census agglomeration (CA) is formed by one or more adjacent municipalities centred on a large urban area (known as the **urban core**). The census population count of the urban core must be at least 10,000 to form a census agglomeration and at least 100,000 to form a census metropolitan area. To be included in the CMA or CA, other adjacent municipalities must have a high degree of integration with the central urban area, as measured by commuting flows derived from census place of work data.

If the population of the urban core of a CA declines below 10,000, the CA is retired. However, once an area becomes a CMA, it is retained as a CMA even if the population of its urban core

population declines below 100,000. The urban areas that are located in the CMA or CA but are not contiguous to the urban core are called the **urban fringe**. Rural areas in the CMA or CA are called the **rural fringe**.

When a CA has an urban core of at least 50,000 based on census counts, it is subdivided into **census tracts**. Census tracts are maintained for the CA even if the population of the urban core subsequently falls below 50,000. All CMAs are subdivided into census tracts.

Census Metropolitan Area and Census Agglomeration Influenced Zone
The census **m**etropolitan area and census agglomeration **i**nfluenced **z**one (MIZ) is a concept that geographically differentiates the area of Canada outside census metropolitan areas (CMAs) and census agglomerations (CAs). Census subdivisions outside CMAs and CAs are assigned to one of four categories according to the degree of influence (strong, moderate, weak or no influence) that the CMAs and/or CAs have on them.

Census subdivisions (CSDs) are assigned to a MIZ category based on the percentage of their resident employed labour force that has a place of work in the urban core(s) of CMAs or CAs. CSDs with the same degree of influence tend to be clustered. The zones they form around CMAs and CAs progress through the categories from "strong" to "no" influence as distance from the CMAs and CAs increases.

Census Subdivision
Census subdivision (CSD) is the general term for municipalities (as determined by provincial legislation) or areas deemed to be their equivalents (for example, Indian reserves, Indian settlements and unorganized territories) used for statistical reporting purposes.

Census Tract
Census tracts (CTs) are small, relatively stable geographic areas that usually have a population of 2,500 to 8,000. They are located in census metropolitan areas (CMAs) and in census agglomerations (CAs) with an urban core population of 50,000 or more in the previous census.

A committee of local specialists (for example, planners, educators and health and social workers) initially delineates CTs in conjunction with Statistics Canada. Once a CMA or CA has been subdivided into census tracts, the census tracts are maintained even if the urban core population subsequently declines below 50,000.

Coordinate System
A coordinate system is a reference system based on mathematical rules for specifying positions (locations) on the surface of the earth. The coordinate values can be spherical (latitude and longitude) or planar (such as the Universal Transverse Mercator).

The Cartographic Boundary Files, the Road Network Files and the representative points are disseminated in latitude/longitude coordinates.

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).

Designated Place
A designated place (DPL) is normally a small community or settlement that does not meet the criteria established by Statistics Canada to be a census subdivision (an area with municipal status) or an urban area.

Designated places are created by provinces and territories, in co-operation with Statistics Canada, to provide data for submunicipal areas.

Dissemination Area
The dissemination area (DA) is a small, relatively stable geographic unit composed of one or more blocks. It is the smallest standard geographic area for which all census data are disseminated. DAs cover all the territory of Canada.

Economic Region
An economic region (ER) is a grouping of complete **census divisions** (with one exception in Ontario) created as a standard geographic unit for analysis of regional economic activity.

Ecumene
Ecumene is a term used by geographers to mean inhabited land. It generally refers to land where people have made their permanent home, and to all work areas that are considered occupied and used for agricultural or any other economic purposes. Thus, there can be various types of ecumenes, each having its own unique characteristics (population ecumene, agricultural ecumene, industrial ecumene, etc.).

Enumeration Area
An enumeration area (EA) is the geographic area canvassed by one census representative. An EA is composed of one or more adjacent blocks. EAs cover all the territory of Canada.

Enumeration areas are only used for census data collection. The dissemination area (DA) replaces the EA as a basic unit for dissemination.

Federal Electoral District
A federal electoral district (FED) is an area represented by a member of the House of Commons. The federal electoral district boundaries used for the 2001 Census are based on the 1996 Representation Order.

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 for the purpose of finalizing the geographic framework for which census data will be collected, tabulated and reported. For the 2001 Census, the geographic reference date is January 1, 2001.

Land Area
Land area is the area in square kilometres of the land-based portions of standard geographic areas.

The land area measurements are unofficial and are provided for the sole purpose of calculating population density.

Locality
Locality (LOC) refers to the historical place names of former census subdivisions (municipalities), former designated places and former urban areas, as well as to the names of other entities, such as neighbourhoods, post offices, communities and unincorporated places.

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 new 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.

Place Name
Place name (PN) refers to the set of names that includes current census subdivisions (municipalities), current designated places and current urban areas, as well as the names of localities.

Population Density
Population density is the number of persons per square kilometre.

Postal Code
The postal code is a six-character code defined and maintained by Canada Post Corporation for the purpose of sorting and delivering mail.

Province or Territory
Province and territory refer to the major political units of Canada. From a statistical point of view, province and territory are basic areas for which data are tabulated. Canada is divided into ten provinces and three territories.

Reference Map
A reference map shows 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.

Representative Point
A representative point is a single point that represents a linear or areal feature. The point is centrally located along the linear feature or centrally within the areal feature.

Representative points are generated for block-faces, blocks, enumeration areas, dissemination areas, census subdivisions and designated places. The block-face and block representative points support the geocoding of households and postal codes.

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.

Rural Area
Rural areas include all territory lying outside urban areas. Taken together, urban and rural areas cover all of Canada.

Rural population includes all population living in the rural fringes of census metropolitan areas (CMAs) and census agglomerations (CAs), as well as population living in rural areas outside CMAs and CAs.

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, attribute accuracy, logical consistency and completeness. This information is provided to users for all spatial data products disseminated for the census.

Standard Geographical Classification
The Standard Geographical Classification (SGC) is Statistics Canada's official classification for three types of geographic areas: **provinces** and **territories**, **census divisions** (CDs) and **census subdivisions** (CSDs). The SGC provides unique numeric identification (codes) for these hierarchically related geographic areas.

Statistical Area Classification
The Statistical Area Classification (SAC) groups census subdivisions according to whether they are a component of a census metropolitan area, a census agglomeration, a census metropolitan

area and census agglomeration influenced zone (strong MIZ, moderate MIZ, weak MIZ or no MIZ), or the territories (Northwest Territories, Yukon Territory and Nunavut). The SAC is used for data dissemination purposes.

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).

Urban Area
An urban area (UA) has a minimum population concentration of 1,000 persons and a population density of at least 400 persons per square kilometre, based on the current census population count. All territory outside urban areas is classified as rural. Taken together, urban and rural areas cover all of Canada.

Urban population includes all population living in the urban cores, secondary urban cores and urban fringes of census metropolitan areas (CMAs) and census agglomerations (CAs), as well as the population living in urban areas outside CMAs and CAs.

Urban Core, Urban Fringe and Rural Fringe
Urban core, urban fringe and rural fringe distinguish between central and peripheral urban and rural areas within a census metropolitan area (CMA) or census agglomeration (CA).

Urban core is a large urban area around which a CMA or a CA is delineated. The urban core must have a population (based on the previous census) of at least 100,000 persons in the case of a CMA, or between 10,000 and 99,999 persons in the case of a CA.

Urban fringe includes all small urban areas (with less than 10,000 population) that are located within a CMA or CA but are not contiguous with the urban core of the CMA or CA.

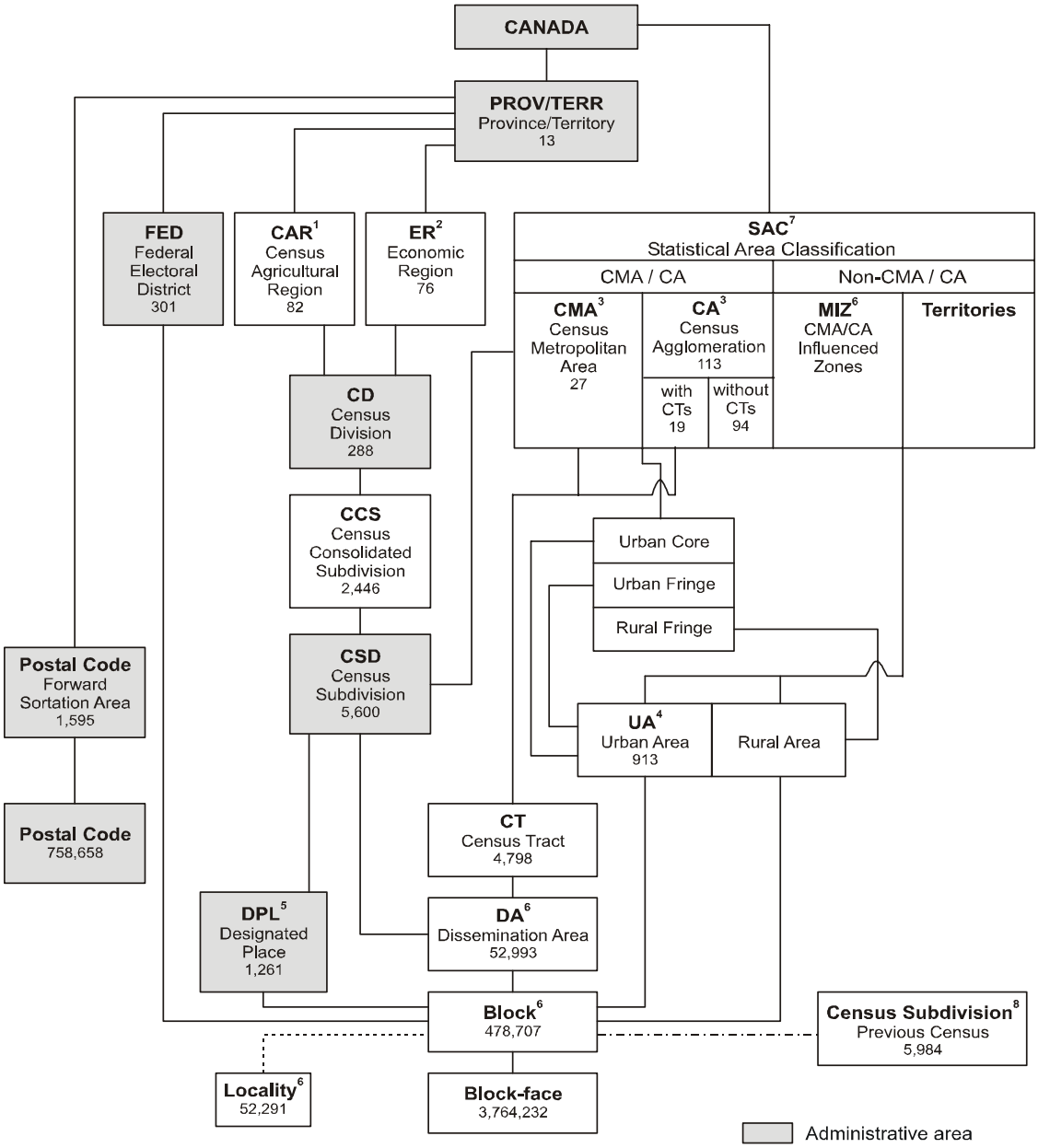
Rural fringe comprises all territory that is located within a CMA or CA but is not classified as an urban core or an urban fringe.

Urban Population Size Group
Urban population size group refers to the classification used in standard tabulations where **urban areas** are distributed according to the following predetermined size groups, based on the current census population.

1,000	–	2,499
2,500	–	4,999
5,000	–	9,999
10,000	–	24,999
25,000	–	49,999
50,000	–	99,999
100,000	–	249,999
250,000	–	499,999
500,000	–	999,999
1,000,000 and over		

Tabulations are not limited to these predetermined population size groups; the census database has the capability of tabulating data according to any user-defined population size group.

Appendix A: Hierarchy of Standard Geographic Units for Dissemination, 2001 Censuses of Population and Agriculture



[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-four DPLs cross CSD boundaries, of which 12 also cross CD boundaries.
[6] Census **m**etropolitan area and census agglomeration **i**nfluenced **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: Geographic Units by Province and Territory, 2001 Censuses of Population and Agriculture

Geographic Unit	Canada		Nfld. Lab.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nvt.
	1996	2001													
Federal electoral district (1996 Representation Order)	295*	301	7	4	11	10	75	103	14	14	26	34	1	1	1
Economic region	74	76	4	1	5	5	17	11	8	6	8	8	1	1	1
Census agricultural region	78	82	3	3	5	4	14	5	12	20	8	8	0	0	0
Census division	288	288	10	3	18	15	99	49	23	18	19	28	1	2	3
Census consolidated subdivision	2,607	2,446	87	68	43	151	1,111	318	127	301	77	157	1	2	3
Census subdivision		5,600	381	113	98	275	1,476	586	298	1,002	452	816	35	37	31
1996 Census	5,984		381	113	110	283	1,599	947	298	970	467	713	35	68	…
Dissolutions (January 2, 1996 to January 1, 2001)	910		0	0	14	12	232	529	3	18	18	83	1	0	…
Incorporations (January 2, 1996 to January 1, 2001)		526	0	0	2	4	109	168	3	50	3	186	1	0	…
Designated place	828	1,261	182	0	59	172	78	81	51	158	260	219	1	0	0
Census metropolitan area	25	27	1	0	1	1	6	11	1	2	2	3	0	0	0
Census agglomeration	112	113	4	2	4	5	28	30	3	7	10	22	1	1	0
With census tracts	18	19	0	0	0	1	3	8	0	0	3	4	0	0	0
Without census tracts	94	94	4	2	4	4	25	22	3	7	7	18	1	1	0
Census tract	4,223	4,798	45	0	86	71	1,263	2,013	165	101	457	597	0	0	0
Urban area	929	913	36	7	39	34	229	258	42	65	108	93	1	3	3
Locality	…	52,291	2,428	964	3,920	3,445	12,448	10,889	2,339	3,868	3,466	7,699	362	173	290
Dissemination area	…	52,993	1,231	225	1,397	1,349	12,153	18,596	2,235	2,937	5,143	7,463	117	92	55
Enumeration area	49,361	42,851	1,204	225	1,337	1,216	9,133	14,753	1,805	2,697	4,129	6,088	117	92	55
Block	…	478,707	8,331	2,831	15,161	13,929	108,760	128,327	30,567	56,040	60,061	53,147	674	745	134
Block-face	817,734	3,764,232	80,162	19,854	168,840	136,311	865,600	955,847	200,569	377,776	435,604	499,365	10,644	12,304	1,356
Forward sortation area	1,477	1,595	33	7	74	110	398	518	64	47	147	188	3	3	3
Postal code	680,910	758,658	7,900	2,856	23,354	55,104	188,427	254,757	23,250	21,184	70,672	109,753	884	487	30

***** Federal electoral districts (1987 Representation Order)

… Not applicable

Note: Underlined numbers indicate that those census metropolitan areas, census agglomerations and urban areas crossing provincial boundaries are counted in both provinces.

Appendix C: Unique identifiers consistent with Geography Division products

Unique Identifiers:

Unique identifiers are codes that uniquely identify a geographic area within Canada. Data from different files (but, for the same geographic area) can be joined or related based on the unique identifier. For example, the data in GeoSuite can be mapped on the CSD Cartographic Boundary File using the CSDuid as the field by which the two data sets can be related. Similarly, the BLOCKuid in the Road Network Files can be used to request data extractions as part of the **Geocoding**.

The following are the unique identifiers for Geographic Areas:

Geographic Area	Unique Identifier Code	Code Composition
Province/Territory	PRuid	2 digit province code
Federal Electoral District	FEDuid	(2 digit province code) + (3 digit federal electoral district code)
Census Metropolitan Area/Census Agglomeration	CMAuid	3 digit CMA/CA code Where there are no CMA/CA this code is NULL
Census Tract	CTuid	(3 digit CMA/CA code) + (4 digit decimal point 2 digit CT Name) Where there are Census Tract Residuals this code is NULL
Urban Area	UAuid	4 digit Urban Area code Where there are Rural Residuals this code is NULL
Economic Region	ERuid	(2 digit province code) + (2 digit economic region code)
Census Division	CDuid	(2 digit province code) + (2 digit Census division code)
Census Subdivision	CSDuid	(2 digit province code) + (2 digit Census division code) + (3 digit Census subdivision code)
Census Agricultural Region	CARuid	(2 digit province code) + (2 digit Census Agricultural Region code)
Census Consolidated Subdivision	CCSuid	(2 digit province code) + (2 digit Census division code) + (3 digit Census consolidated subdivision code)
Designated Place	DPLuid	(2 digit province code) + (4 digit designated place code) Where there are no Designated Places this code is NULL
Designated Place Census Subdivision Parts	DPL_CSDuid	(2 digit province code) + (2 digit Census Division code) + (3 digit Census Subdivision code)+ (4 digit designated place code) Where there are no Designated Places this code is NULL
Dissemination Area	DAuid	(2 digit province code) + (2 digit Census division code) + (4 digit dissemination area code)
Block Unique Identifier (Dissemination)	BLOCKuid	(first 4 digits of the CSDUID) + (4 digit DACODE) + (last 2 digits of the CBCODE)
Arc Unique Identifier	ARC_ID	10 digit arc code
Polygon Unique Identifier	POLY_ID	10 digit polygon code

Appendix D: Spatial file naming conventions

For the 2001 Censuses of Population and Agriculture, spatial products disseminated to clients will have file names harmonized to the Spatial File Naming Convention. The File geography, file type, language and software type and date stamp will be imbedded within the name. Standardizing the names of the files should facilitate the storage of compressed files, all having the extension *.exe.

These file-naming conventions are based primarily on the naming conventions used for 1996 DCF/DBF. The naming conventions were expanded to include Road Network Files, Skeletal Road Network Files, population and agricultural **ecumenes** and other boundary files. The naming conventions were also expanded to include the dissemination year of the file to allow for versioning, as well as indicate the file format.

Each file name is 13 characters in length, which meets the requirements of ARC/INFO®'s and MapInfo®'s limitations for file name sizes. All alphabetic characters are in lower case to maintain consistency.

First Character: geographic representation of file

g	if coordinate system is Latitude/Longitude
l	if projection is Lambert Conformal Conic

Next three characters: primary geographic area of file

Geographic Area (CBF)/Product	English File	French file
National/Provincial	pr_	pr_
Federal Electoral District	fed	cef
Economic Region	er_	re_
Census Division	cd_	dr_
Census Subdivision	csd	sdr
Census Agricultural Region	car	rar
Consolidated Census Subdivision	ccs	sru
Census Metropolitan Area/Census Agglomeration	cma	rmr
Census Tract	ct_	sr_
Urban Area	ua_	ru_
Designated Places	dpl	ld_
Designated Places with CSD parts	dpp	ldp
Dissemination Area	da_	ad_
Population Ecumene	ecu	ecu
Agriculture Ecumene	eca	eca
Road Network File	rnf	frr
Skeletal Road Network File	srn	fsr
Supporting Hydrography: interior lakes and double line rivers	hy_	hy_
Great Lakes	gl_	gl_
St. Lawrence river and gulf	sl_	sl_
Altantic Ocean with St-Pierre - Miquelon	atl	atl

Arctic Ocean	arc	arc
Pacific Ocean	pac	pac
Bordering continental US and Alaska	usa	eu_
Greenland	grl	grl

Next three Numbers: **geographic code** of coverage

National	Provincial/territorial		CMA/CA	
000	010	Newfoundland and Labrador	001	St. John's
	011	Prince Edward Island	.	
	012	Nova Scotia	.	
	013	New Brunswick	.	
	024	Québec	505	Ottawa-Hull
	035	Ontario	(etc.)	
	046	Manitoba		
	047	Saskatchewan		
	048	Alberta		
	059	British Columbia		
	060	Yukon		
	061	Northwest Territories		
	062	Nunavut		

Next character: file type (based on 1996 codes)

a Digital boundary file (for Dissemination Warehouse only) (DBF in 1996)
b Cartographic Boundary File, detailed coverage for large-scale mapping
d Digital Boundary File without shoreline
e Ecumene
f Cartographic Boundary File, generalized for desktop mapping, based on the file in GeoGratis site
h Additional Cartographic International Boundary coverage and Hydrographic Coverage of Great Lakes, St. Lawrence River and surrounding ocean
r Road Network Files (RNF and SRNF)

Following two numbers: dissemination year (date stamp for versioning)

01 disseminated in 2001
02 disseminated in 2002
03 disseminated in 2003
etc.

Next character: file format

a ARC/INFO® ArcGIS interchange file (e00)
m MapInfo® interchange file (mid & mif)

Final two characters: language

_e English
_f French

Examples of the use of the File Naming Conventions

Ex. 1:	CSD cartographic boundary file for Ontario with English attributes in MapInfo® interchange format	gcsd035b02m_e.exe ghy_035h02m_e.exe ggl_000h02m_e.exe gsl_000h02m_e.exe gusa000h02m.e.exe	Boundary file for Ontario Interior lakes/rivers file for Ontario Great Lakes file St. Lawrence file Bordering US boundary file
Ex. 2:	CT cartographic boundary file for Ottawa-Hull with French attributes in ARC/INFO® interchange format	gsr_505b02a_f.exe ghy_505h02a_f.exe	Boundary layer for Ottawa CMA Interior lakes/rivers layer for Ottawa CMA
Ex. 3:	Road Network File for St. John's, NF with English attributes in MapInfo® interchange format	grnf001r02m_e.exe ghy_001h02m_e.exe gatl000h02m_e.exe	Road file Interior lakes/rivers file for St. John's CMA Atlantic Ocean file

Appendix E: Positional accuracy of the road network on the National Geographic Base

Geographic area boundaries were created on the National Geographic Base based on the road network information. Polygon attributes for geographic areas were updated for the 2001 census on the National Geographic Base road network layer. The geographic area boundaries were based on maps and other information from the census data collection processes or were created automatically by a computer program called Geographic Area Delineation System (GArDS)[1].

The positional accuracy of the CAR boundary file is similar to that of the National Geographic Base. Arcs in the CAR boundary file may be shifted by about a meter as a result of editing. The CAR boundary file was checked for topological errors including collapsed polygons. Any errors found were corrected.

Roads on the National Geographic Base

The positional accuracy of roads on the National Geographic Base varies with the source materials used during creation of the base. An attempt was made to geometrically adjust all roads such that they were in the same position as roads on the National Topographical Data Base (NTDB) (1:50,000 and 1:250,000) or DCW, which were used for reference purposes. It is therefore expected that these geometrically matched arcs will have a positional accuracy similar to the corresponding reference data used during creation of the database. It should be noted that the reference source selected for different geographic areas depended on a variety of factors such as population size, geographic location (urban or rural) and the availability of NTDB/DCW data in Elections Canada/Statistics Canada holdings and was done on a NTS tile-by-tile basis. For example, in major urban centres 1:50,000 NTDB data was generally used as the reference data. As a result, in these areas, roads that were geometrically matched will have a positional accuracy similar to roads on 1:50,000 NTDB data. In areas that used 1:250,000 NTDB and DCW reference data the positional accuracy of roads are approximately that of the source data.

The positional accuracy of arcs that could not be matched because they were not present on the reference data is, however, completely unknown. These arcs were digitized from paper maps annotated by field staff. Although highly valuable and accurate in their attribute information and their relative position in relation to other features, the absolute positional accuracy of these roads is of unknown quality.

Other corrections have been made to the National Geographic Base from updated map sheets supplied by local participants for Census and Electoral programs. The positional accuracy of these updates is also of unknown quality. In addition to federal, provincial, and municipal government sources, portions of the National Geographic Base may contain information obtained in part from maps and other materials prepared by private companies. Thus, the National Geographic Base is **not** suitable for high-precision measurement applications such as engineering problems, property transfers, or other uses that might require highly accurate measurements of the earth's surface.

[1] GArDS aggregates small geographic areas (in this case, blocks) according to a set of delineating or design criteria to produce a set of desired geographic areas. The design criteria are assigned penalty weights. The solution with the lowest total penalty weight is accepted, which is an aggregate of the penalty weights of all the combined criteria for all geographic areas.

Quality controls were employed throughout the production process to ensure boundaries were in their correct position relative to the roads on the base.

Geography Division products and services

This section provides brief descriptions of Geography Division products and services related to the 2001 Census of Population. 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.

92F0086XCB Postal Codes Counts
Note: Postal code products for the 2001 Census are currently under review. The planned release for these products is in the fourth quarter of 2002. Until that time, postal codes products containing 1996 Census data will continue to be available.

Postal Code Counts, 1996 Census contains population and dwelling counts for all six character postal codes reported by respondents. The population and dwelling counts are provided by individual postal code, by forward sortation area (FSA - the first three character of the six-character postal code) and by province or territory. The data are provided with Windows-based software that enables users to perform simple data manipulations such as searching the data set for specific postal codes, importing groups of postal codes for which counts are required and exporting groupings of postal codes. Documentation and reference material are contained in electronic form on the CD-ROM.

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 of at least 0.4 persons per square kilometre (approximately 1 person per square mile) 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. Each census division has a least one ecumene pocket. 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.

92F0039XDE Forward Sortation Areas Boundary File
Note: Postal code products for the 2001 Census are currently under review. The planned release for these products is in the fourth quarter of 2002. Until that time, postal code products containing 1996 Census data will continue to be available.

The **1996 Census Forward Sortation Areas Digital Cartographic File** is available as a standard package for Canada. It depicts forward sortation area (FSA) boundaries derived from postal codes captured from the 1996 Census questionnaires. Through analysis of the postal codes reported by census households, a single FSA was assigned to each enumeration area (most often the FSA reported by the largest number of census households). FSA polygons were formed by grouping enumeration areas. Therefore, the Census based FSA boundaries are not equivalent to FSA boundaries in use by Canada Post, but are representations created from enumeration areas.

92F0157XCE Road Network Files (RNF), 2001 Census
Road Network Files (RNFs) contain a road layer for the entire country and a province/territory boundary layer. The road layer includes roads, with road names and address ranges (arc attributes), and geographic codes to identify blocks, census subdivisions, census metropolitan areas/census agglomerations, and provinces/territories (polygon attributes). Address ranges are mainly available in the large urban centres of Canada. The province/territory boundary layer incorporates hydrography (the shoreline around Canada and the larger inland lakes) with the boundaries and the geographic codes. The digital coordinates are in latitude/longitude and are based on the North American Datum of 1983 (NAD83).

Road Network Files are available for Canada, for individual provinces and territories, and for census metropolitan areas (CMAs) and those census agglomerations (CAs) with census tracts.

92F0158XCE Skeletal Road Network Files (SRNF), 2001 Census
The Skeletal Road Network Files contain selected roads (with road names, but no addresses) that are derived from Road Network Files (Catalogue No. 92F0157XCE). The selected roads are ranked according to four levels of detail. The different levels of detail are suitable for mapping at small to medium scales. The SRNF can be used to provide some cartographic reference features when producing thematic maps with the Cartographic Boundary Files. The positional accuracy of the SRNF does not support cadastral, surveying or engineering applications. The SRNF does not include hydrography.

The Skeletal Road Network Files are available for Canada, provinces and territories, and census metropolitan areas (CMAs) and tracted census agglomerations (CAs).

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.

92F0027UCB 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.

92F0028XDB Postal Codes by Federal Ridings (1996 Representation Order) File – 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. A reference guide is included. 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.

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.

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