

# **GeoBase Orthoimage 2005-2010**

**2015-08-31**

**Natural Resources Canada  
Earth and Sciences Sector  
Canada Centre for Mapping and Earth Observation**

## **GeoGratis Client Services**

Telephone: +01-819-564-4857

1-800-661-2638 (Canada and USA)

Fax: +01-819-564-5698

E-mail: [geoinfo@NRCan.gc.ca](mailto:geoinfo@NRCan.gc.ca)

URL : [www.GeoGratis.gc.ca](http://www.GeoGratis.gc.ca)

**Canada**

## Copyright notice

© Her Majesty the Queen in Right of Canada, Department of Natural Resources.  
All rights reserved.

**RELEASES HISTORY**

<b>Date</b>	<b>Description</b>
2015-08-31	Updating links
2015-02-10	Adding direct FTP link to download the data and updating links for partners.
2014-09-01	Original edition

**TABLE OF CONTENTS**

**WHAT IS GEOBASE? ..... 1**

**DESCRIPTION ..... 1**

**DOCUMENTATION ..... 1**

**METADATA ..... 1**

**USE AND RESTRICTIONS..... 1**

**DATA FORMAT..... 1**

**EDITING OR VIEWING FREE SOFTWARE ..... 1**

**DATA DISCREPANCIES ..... 1**

**ACCURACY OF THE GEOBASE 2005-2010 DATA SET ..... 2**

**TABLE OF THE ORTHORECTIFIED IMAGES AND THE CORRESPONDING RAW IMAGES..... 3**

**DOWNLOAD DATASETS AVAILABLE ..... 3**

**GEOBASE ORTHOIMAGE 2005-2010 PARTNERS ..... 3**

**CONTACT US ..... 4**

**SERVICE STANDARDS ..... 4**

## What is GeoBase?

GeoBase is a federal, provincial and territorial government initiative that is overseen by the [Canadian Council on Geomatics](#) (CCOG). It is undertaken to ensure the provision of, and access to, a common, up-to-date and maintained base of quality geospatial data for all of Canada. Through GeoBase, users with an interest in the field of geomatics have access to quality geospatial information at no cost and with unrestricted use. [More on GeoBase initiative](#).

## Description

GeoBase Orthoimage 2005-2010 is made from SPOT 4/5 earth observation data covering Canada's landmass south of the 81st parallel during the period 2005-2010. Each GeoBase Orthoimage 2005-2010 covers an area of approximately 3 600 km<sup>2</sup>, or 60 km x 60 km of the Earth's surface.

Orthoimages have a resolution of 10 metres for the panchromatic band and 20 metres for the multispectral bands. The panchromatic and multispectral bands are aligned. If the resolution of the source image is better than the requested 10 metres or 20 metres and the images are resampled at 10 and 20 metres, the original source images are provided for quality control purposes. The radiometric information from the resulting image matches the information from the original higher-resolution image as closely as possible. Each band has a radiometry of 8 bits (values between 0 and 255). The multispectral image provides four bands. The minimum cloud-free (2% maximum) coverage required for an image (selected zone) is 40 km x 40 km, panchromatic and multispectral taken simultaneously.

Spatial data is expressed according to Canada Lambert Conformal Conic projection or Universal Transverse Mercator projection, both in reference to the North American Datum 1983 - Canadian Spatial Reference System (NAD83CSRS).

Download the [GeoBase Orthoimage 2005-2010 Fact Sheet](#) [[pdf](#) 292 KB]

## Documentation

For more details on GeoBase Orthoimage 2005-2010 standards and specifications, see [GeoBase Orthoimage 2005-2010, Product Specifications](#) [[pdf](#) 163 KB].

## Metadata

Metadata are provided with each dataset. Among other, the validity date and the planimetric accuracy are shown in this file.

## Use and Restrictions

Use of the GeoBase data is subject to the [Open Government Licence – Canada](#).

## Data Format

GeoBase Orthoimage 2005-2010 datasets are available in GeoTiff format.

## Editing or Viewing Free Software

It is possible to see data using free software, see the question 'How can I open a raster or vector dataset if I do not have a GIS software?' in the GeoGratis [FAQ](#) section.

## Data Discrepancies

This product is subject to Discrepancies processing provided by the Centre for Topographic Information from Natural Resources Canada. A *discrepancy* is defined as any deviation from the product's Standards and Specifications. You have any suggestions or comments regarding the National Hydro Network (NHN) product,

please send it at: [geoginfo@NRCan.gc.ca](mailto:geoginfo@NRCan.gc.ca). You can also verify if they are [discrepancies](#) currently logged on the product.

### Accuracy of the GeoBase 2005-2010 data set

The ortho-rectification process of SPOT 4 and SPOT 5 imagery results in orthoimages with a high degree of positional accuracy. Figure 1 shows the positional accuracy of the orthoimages produced since the beginning of the GeoBase 2005-2010 project. Note that more than 98% of the orthoimages are accurate to 30 metres or better within a 90% confidence level (of precision).

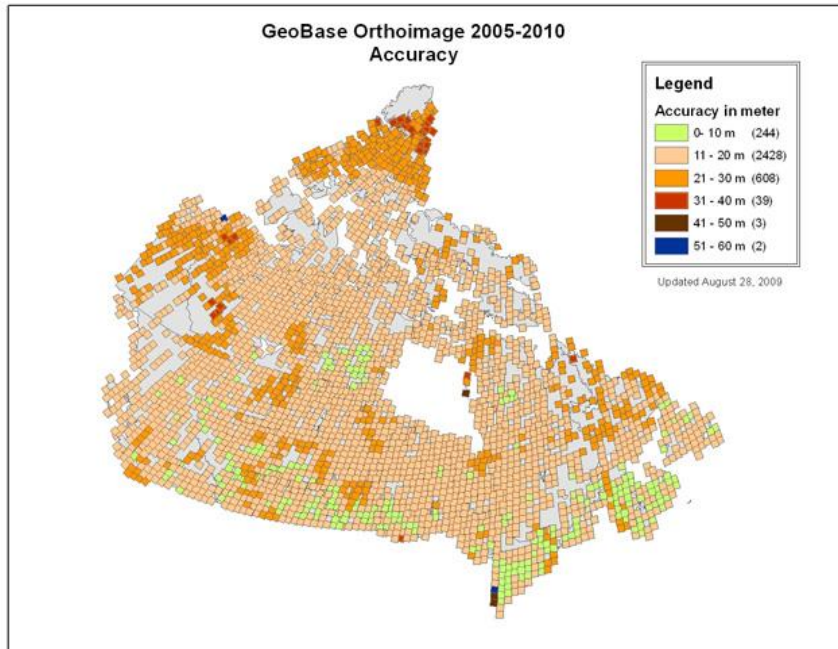


Figure 1: Accuracy of the GeoBase 2005-2010 data set (partial information).

Tests to determine accuracy were carried out by measuring the difference in X and Y coordinates between the same control points found on overlapping images. Based on evenly spaced samples taken from across Canada, Figure 2 shows mean differences and standard deviations of less than 10 metres. These factors are particularly important to those wishing to create mosaics of all of Canada or of regions of the country.

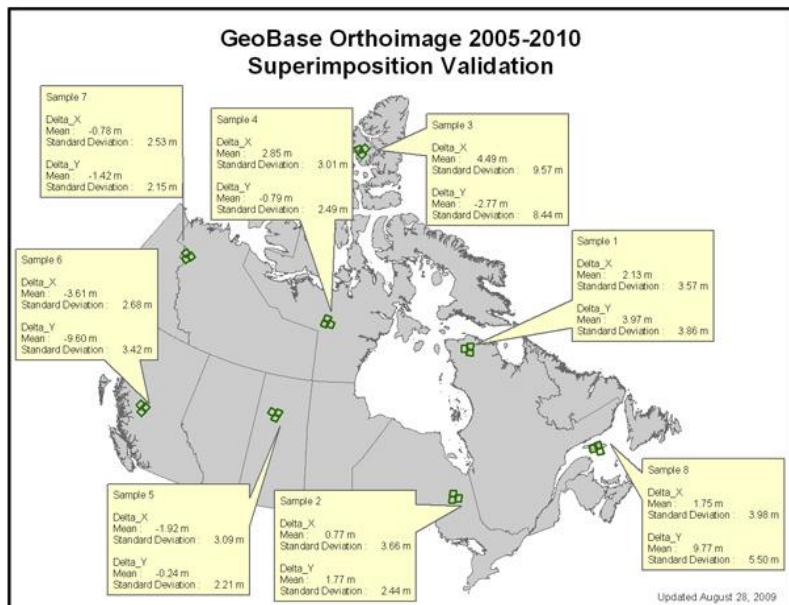


Figure 2: Evaluation of accuracy based on measuring superimposed control points on overlapping images.

## Table of the orthorectified images and the corresponding raw images

[List](#) of the orthorectified SPOT4/5 images and the corresponding raw images

### Download datasets available

5,344 datasets available

In the [GeoGratis](#) search tool, insert, if you know, the location in the "Geographic Location" section, insert in the "Subject Keywords" section "geobase orthoimage 2005-2010", click on "Remotely Sensed Data (satellite, airborne, sonar, etc)", and finally click on "Search". You can reduce the number of products found by zooming on the map in the area of interest and click on the "Redo Search with Map Extent" option available under the map. You can also go directly to the list of datasets in the [GeoBase Orthoimage 2005-2010](#) GeoGratis API. Direct FTP link: [GeoBase Orthoimage 2005-2010](#). For more information about the GeoGratis Search tool, see the question "[How do I conduct a search in the GeoGratis tool?](#)" in the GeoGratis FAQ.

## GeoBase Orthoimage 2005-2010 Partners

With funding support from [GeoConnections](#), the following federal and provincial/territorial agencies jointly contributed to the production of the orthoimages.

### Provincial and Territorial Agencies

#### British Columbia

[Base Mapping and Geomatic Services](#)

#### Alberta

[Environment and Sustainable Resource Development](#)

#### Saskatchewan

[Saskatchewan Research Council](#)

#### Ontario

[Ministry of Natural Resources and Forestry](#)

#### Quebec

[Ministère de l'Énergie et des Ressources naturelles](#)

#### New Brunswick

[Service New Brunswick](#)

#### Prince Edward Island

[Government of Prince Edward Island](#)

## **Nova Scotia**

[Service Nova Scotia](#)

## **Yukon**

[Geomatics Yukon](#)

## **Northwest Territories**

[Centre for Geomatics](#)

## **Nunavut**

[Community and Government Services](#)

## **Federal Agencies**

- [Agriculture and Agri-Food Canada](#)
- [Environment Canada](#)
- [National Defence and the Canadian Armed Forces](#)
- [Natural Resources Canada](#)
- [Parks Canada](#)
- [Public Safety Canada](#)

## **Contact us**

For answers to technical questions, please consult the [Frequently Asked Questions](#) section. In addition, the content of metadata files delivered with digital data can provide answers to most of your questions.

If you do not find answers to your questions or to submit your comments, suggestions and ideas about **GeoGratis**. Please contact us using one of the methods below:

- **By email at:** [geoginfo@nrcan.gc.ca](mailto:geoginfo@nrcan.gc.ca)
- **By telephone:** **+01-819-564-4857 / 1-800-661-2638 (Canada and USA)**

## **Service Standards**

The service standards are guidelines intended to ensure a uniform service to our customers. Service must be fast, reliable and of quality. The service is examined and improved regularly, based on customers' feedback.

We are committed to:

- Answer to users during business hours: from 8:30 AM to 12:00 PM and from 1:00 PM to 4:30 PM (Eastern Time).
- Respond to inquiries within 2 working days. When applicable, follow up on request within the period agreed with the user.
- Insure the availability of our website 90% of the time on a monthly basis, 24 hours a day, 7 days a week.