Control Points for Landsat 7 Imagery

2015-08-31

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

Canadä

Copyright notice

RELEASES HISTORY

Date	Description
2015-08-31	Updating links
2015-02-10	Adding direct FTP link to download the data.
2014-09-01	Original edition

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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

Control Points for Landsat 7 Imagery consist of a set of georeferenced points that are readily identifiable at various map scales. Along with the Landsat 7 orthoimages, they comprise one of the two components of the GeoBase Data Alignment Layer (GDAL).

The control points were used for the geometric correction of Landsat 7 satellite imagery. They can also be used to correct vector data and for simultaneously displaying data from several sources prepared at different scales or resolutions.

The control data come from different sources; selection priority is given to the most accurate sources. The normal ranking in decreasing order is: Updated Road Network vector data, provincial vector data, accurate National Topographic Data Base (NTDB) data, federal aerotriangulation data, and other sources. Accuracy is assessed for each control point. The control data, which have been extracted from the sources indicated above, can be comprised of vector data from road intersections or centres of gravity of lakes and islands. In some cases, the intersection with the centre line of a river represented as a surface may have been used.

Each control point is unique and its position is determined to simultaneously cover the greatest possible number of Landsat 7 images (location in areas of image overlap). Control points are distributed homogeneously within the image depending on specific sectors. The sectors are located around the image perimeter, in the image's areas of lowest and highest elevation, as well as the areas in which adjacent images overlap.

A map context is also associated with each control point (control point context). The intersections of linear topographic features (road, railway, watercourse, etc.) and the perimeters of lakes and islands are extracted in order to facilitate identification of control points. The reference entities result from vectorization of perceptible topographic features extracted from Landsat 7 source images.

The control points will cover the entire Canadian landmass. Control point availability is directly related to the production of Landsat 7 orthoimages, which began in 1999 and will be completed in spring 2005.

Documentation

For more details on Control Points for Landsat 7 Imagery standards and specifications, see **Control Points for Landsat 7 Imagery, Product Specifications** [pdf 118 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 Formats

Control Points datasets are available in both GML (Geography Markup Language) and ESRI Shapefiles.

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.

Download datasets available

1 dataset available

In the GeoGratis search tool, insert, if you know, the location in the "Geographic Location" section, insert in the "Subject Keywords" section "control points for landsat 7 imagery", click on "Data (vector, tabular, etc.) ", and finally click on "Search". You can also go directly to the list of datasets in the Control Points for Landsat 7 Imagery GeoGratis API. Direct FTP link: Control Points for Landsat 7 Imagery. 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.

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

- **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 Web site 90% of the time on a monthly basis, 24 hours a day, 7 days a week.