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Access and Download our free geospatial data

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canadien de cartographie et d'observation de la Terre

Customer service / Service à la clientèle



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There are several ways to access and download our geospatial data

- Open Government portal (Open maps)
- Geospatial product index - HTML
- Geospatial Data Extraction tool
- Download Directory and Documentation (FTP site)
- Toporama Interactive Mapping tool (make your own maps)
- Most popular collections and Web mapping services (WMS)

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GeoInfo Topographic Information

Topographic Information

Topographic Information: where you can find maps, data, applications and tools.

Geospatial Applications and Tools

[Open Government Search](#)



Search Natural Resources
Canada products by keyword.

[Geospatial product Index - HTML](#)



Find and download our most
popular geospatial data.

[Toporama Interactive Map](#)



Explore topographic data using
tools for searching place names,
measuring distances and more.

[Geospatial Data Extraction](#)



Download elevation and
topographic data based on
predefined or custom-defined
geographic areas.

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Open Government Portal

Open Government

Open Government is about making government more accessible to everyone. Participate in conversations, find data and digital records, and learn about open government.

Right now you can also [help shape priorities and commitments for Open Government for 2018-2020](#).

Search for open data and information:

[Find](#)

Open data

Search Government of Canada data, learn how to work with datasets, see what people have done with our data.

Open dialogue

Interact with open government experts and enthusiasts and share your ideas for new innovative approaches to open government.

Open information

Search Government of Canada digital records, completed access to information request summaries, and contracts over \$10,000.

About Open Government

Explore Canada's open government commitments, discover open government programs across Canada, and learn more about the Open Government Licence.

Open Maps

Open Maps provides access to the Government of Canada's geospatial information. You can combine, visualize, and analyze geospatial data and collaborate with other Canadians.

Open Maps is a work in progress and will expand and improve over the coming months. Check back for updates, and please [let us know what you think](#).

Follow:



Find data and view it on a map.

[Find](#)

Search result (Open Government)

6 records found

Order by Relevance

Road networks ✕ Natural Resources Canada ✕ Open Maps ✕

National Road Network - NRN - GeoBase Series

The NRN product is distributed in the form of thirteen provincial or territorial datasets and consists of two linear entities (Road Segment and Ferry Connection Segment) and three punctual entities (Junction, Blocked Passage, Toll Point) with which is associated a series of descriptive attributes...

Organization: Natural Resources Canada

Resource Formats: WMS PDF SHP KMZ

+ Add to Map Cart

Transport networks in Canada - CanVec Series - Transport features

The Transport Features theme is derived from the National Road Network (NRN) and the National Railway Network (NRWN). The dataset describes roads, trails, bridges, railroads and their related information. The transport features include nautical facilities, track segments, track junctions, railway...

Organization: Natural Resources Canada

Resource Formats: HTML FGDB/GDB SHP KMZ WMS

Organization

☒ Natural Resources Canada (6)

☐ Transport Canada (1)

✕ Clear All

Keywords

☐ Canada (7)

☒ Lakes (5)

☐ Railway networks (6)

☐ Rivers (5)

☒ Road networks (6)

▼ Show more

✕ Clear All

Topic Categories

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National Road Network (Open Government)

National Road Network - NRN - GeoBase Series




The NRN product is distributed in the form of thirteen provincial or territorial datasets and consists of two linear entities (Road Segment and Ferry Connection Segment) and three punctual entities (Junction, Blocked Passage, Toll Point) with which is associated a series of descriptive attributes such as, among others: First House Number, Last House Number, Street Name Body, Place Name, Functional Road Class, Pavement Status, Number Of Lanes, Structure Type, Route Number, Route Name, Exit Number. The development of the NRN was realized by means of individual meetings and national workshops with interested data providers from the federal, provincial, territorial and municipal governments. In 2005, the NRN edition 2.0 was alternately adopted by members from the Inter-Agency Committee on Geomatics (IACG) and the Canadian Council on Geomatics (CCOG). The NRN content largely conforms to the ISO 14825 from ISO/TC 204.

[View on Map](#)

Publisher: Current Organization Name: Natural Resources Canada

Licence: [Open Government Licence - Canada](#)

Resources

Resource Name 	Resource Type 	Format 	Language 	Links
Documentation related to National Road Network (NRN)	Guide	PDF	English French	Access
Index of available files (drag and drop the kmz file in Google Earth to localize your region of interest)	Dataset	KMZ	English French	Access
Provincial and territorial pre-packaged NRN files available in Shapefiles, KML and GML format (download directory)	Dataset	SHP	English French	Access
Réseau routier (Groupe de couches)	Web Service	WMS	French	Access
Road Network (Groupe de couches)	Web Service	WMS	English	Access

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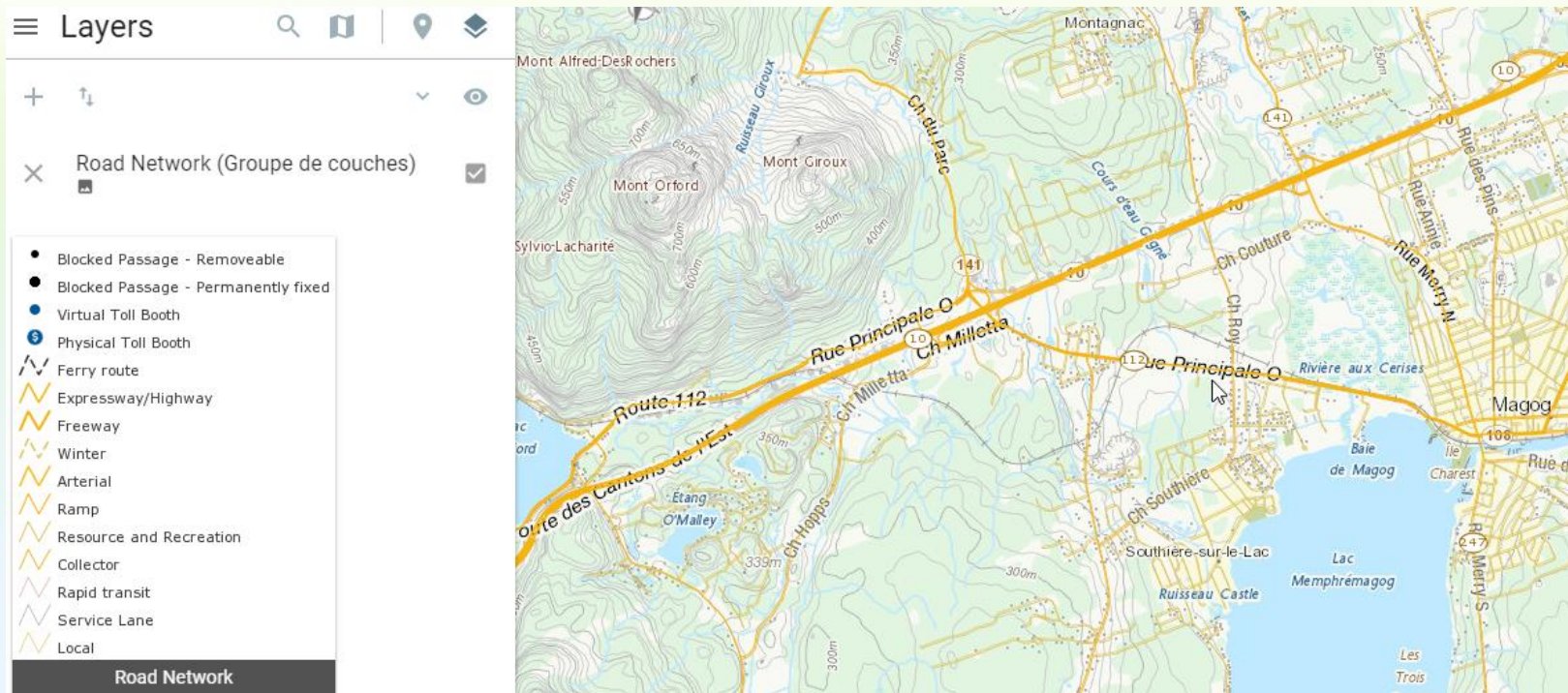


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Road Network - View on map (Open Government)



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Geospatial product Index – HTML

Instruction **Themes** Preview and download

Imagery

Raster

Vector

Elevation

Archived Data



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Select a collection (HTML - Index)

Imagery

Raster

Vector

CanVec Series - Administrative features

CanVec Series - Elevation features

CanVec Series - Hydrographic features

CanVec Series - Manmade features

CanVec Series - Resources Management features

CanVec Series - Land features

CanVec Series - Toponymic features

CanVec Series - Transport features

NTDB / BNDT - 1:50 000

NTDB / BNDT - 1:250 000

National Road Network - NRN - GeoBase Series

National Railway Network - NRWN - GeoBase Series

National Hydro Network - NHN - GeoBase Series

Canadian Geographical Names - CGN - GeoBase Series

Canadian Land Cover, circa 2000 - GeoBase Series

GeoBase - Aboriginal Lands of Canada

Vector digital topographic map - VMap1

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Select the format and download - (HTML - Index)

Instruction

Themes

Preview and download

No image preview is available

nhn_rhn_02rg001_gdb_en.zip

nhn_rhn_02rg001_gdb_fr.zip

nhn_rhn_02rg001_gml_en.zip

nhn_rhn_02rg001_gml_fr.zip

nhn_rhn_02rg001_shp_en.zip

nhn_rhn_02rg001_shp_fr.zip

nhn_rhn_02rg001_kml_en.kmz

nhn_rhn_02rg001_kml_fr.kmz

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Geospatial Data Extraction tool

Geospatial Data Extraction



Download elevation and topographic data based on predefined or custom-defined geographic areas.

Find a location (Extraction tool)

► Overlay reference layer(s)

► Select clipping area

► Select data to be extracted

► Select options and submit job

► Job status

▼ Find a location

kingston

Find

Place	Type	
Kingston, Frontenac, Ontario	Unincorporated area	Zoom to
Kingston, Frontenac, Ontario	City	Zoom to
Kingston, Kings, Nova Scotia	Village	Zoom to
Kingston, Frontenac, Ontario	Geographical area	Zoom to
Kingston Crescent, Manitoba	Unincorporated area	Zoom to

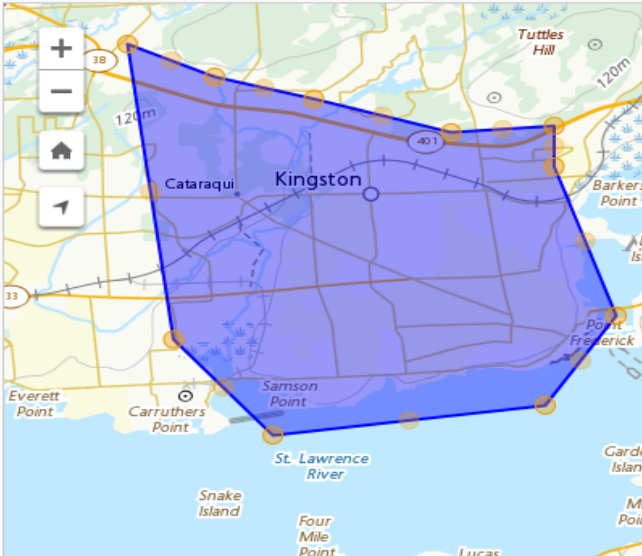
Select a clipping area option (Extraction tool)

▼ Select clipping area

► [Want more info, click here!](#)

- ☐ Current Map Extent
- ☐ Predefined Clipping Area
- ☒ Custom Clipping Area
 - ☒ Draw a rectangle
 - ☒ Draw a polygon
 - ☐ Reshape feature
 - ☐ Rotate feature
 - ☐ Resize feature
 - ☐ Drag feature
- ☐ Enter coordinates
- ☐ Area from a Shapefile
- ☐ Remove selected area

► Instructions: Map Navigation



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Select the collection and the layers (Extraction tool)

CanVec


Data Extraction Form

* Extraction polygon coordinates in geoJson, wkt or bbox format  (required)

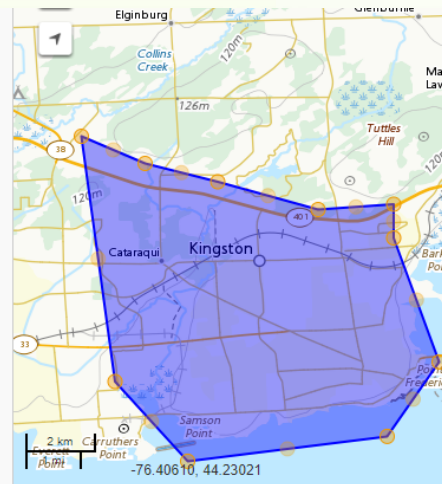
```
44.20837261355,-76.555801042013  
44.228531974193,-76.564325400742  
44.290595287746))
```

Maximum allowed area (km²) : 150000

Extraction zone area (km²) : 46.63

* Select one or more theme from the list  (required)

- ☒ **Select all / unselect all**
- ☐ Lakes and rivers - Hydrographic features
- ☐ Transport networks - Transport features
- ☐ Constructions and land use - Manmade features
- ☐ Mines, energy and communication networks - Resources Management Features
- ☐ Wooded areas, saturated soils and landscape - Land Features
- ☐ Administrative Features
- ☐ Elevation features



Others parameters (Extraction Tool)

* Output format choice ? (required)

ESRI file geodatabase ▼

* Select a coordinate system ? (required)

NAD83 CSRS (EPSG:4617) ▼

* Select to clip or not the data ? (required)

Yes ▼

* Select the scale of the data ? (required)

1/50 000 ▼

* Email address (yourname@domain.com) ? (required)

lan.fleming@ubishops.ca

Submit

► Want more info, click here !

Id	Status
12716	Queued

Refresh status

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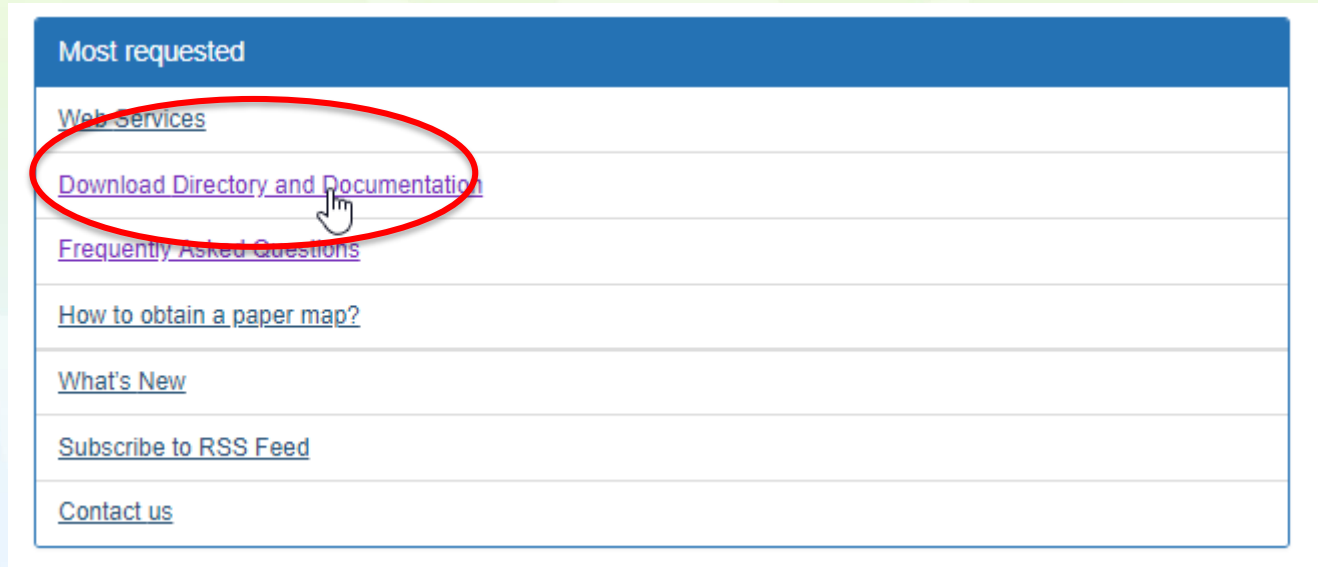


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Download Directory and Documentation (FTP site)



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Toporama Interactive Mapping tool

Make your own map

Toporama Interactive Map



Explore topographic data using tools for searching place names, measuring distances and more.

Find a location (Toporama interactive)

The Atlas of Canada - Toporama

► Instructions: Keyboard Navigation ?

Toporama

Menu

- Search and Map Information ?
- Find a Location ?

Enter and select a place name, National Topographic System (NTS) number, postal FSA (K1G), street address, street name, latitude and longitude coordinate or map scale

Map Information

- Get coordinates from map

Overview Map

Approximate Scale 1:30 000 000

Show on map

- Map Layers and Legend(s) ?
- Measuring and Drawing Tools ?
- Download Maps and Data ?
- Import Data ?

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Get Coordinates (Toporama interactive)

Map location information

Geographic Coordinates

Degrees Decimal

Latitude: 45.4180299021958

Longitude: -72.46203770467017

Degrees Minutes Seconds (DMS)

Latitude: 45° 25' 04.000" N

Longitude: 72° 27' 43.000" W

UTM Coordinates

Zone: 18

Easting: 698570

Northing: 5032523

NTS Mapsheet

031H08 - MONT ORFORD

Elevation

240 m

Magnetic declination

Date: 2018-05-24

Magnetic declination (DD): -14.908°

Annual change (minutes/year): 4.4

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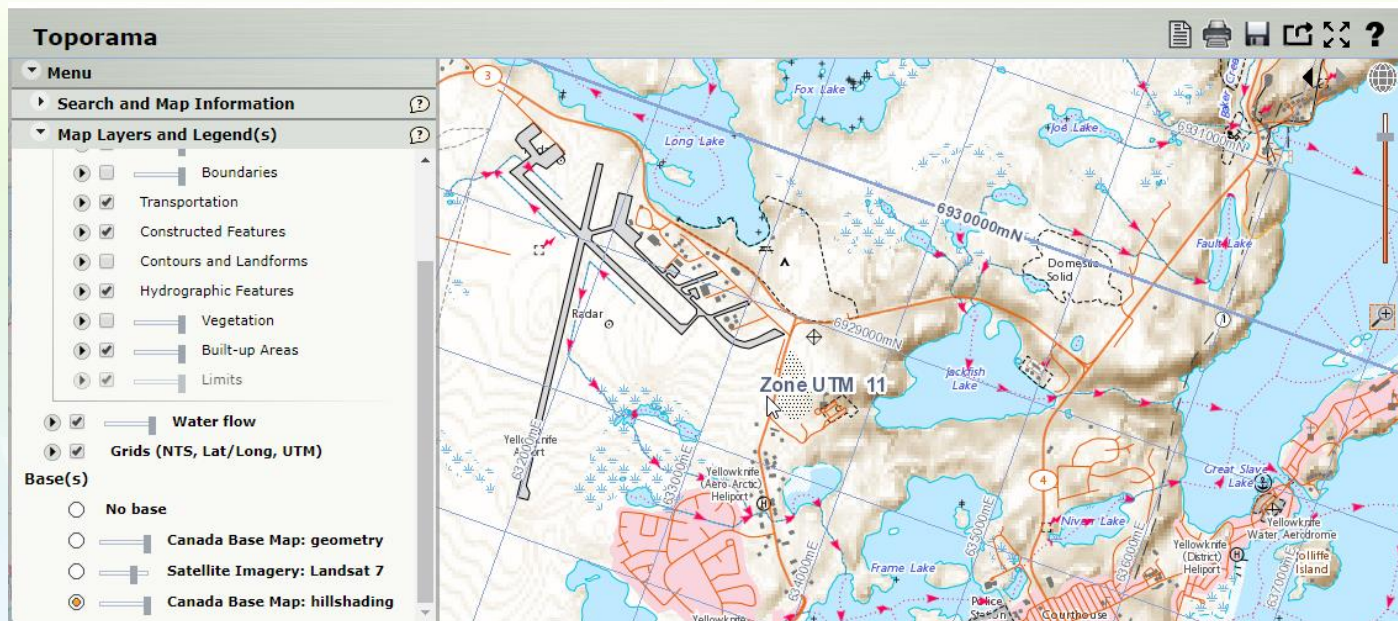


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Select layers, grids and base maps (Toporama interactive)



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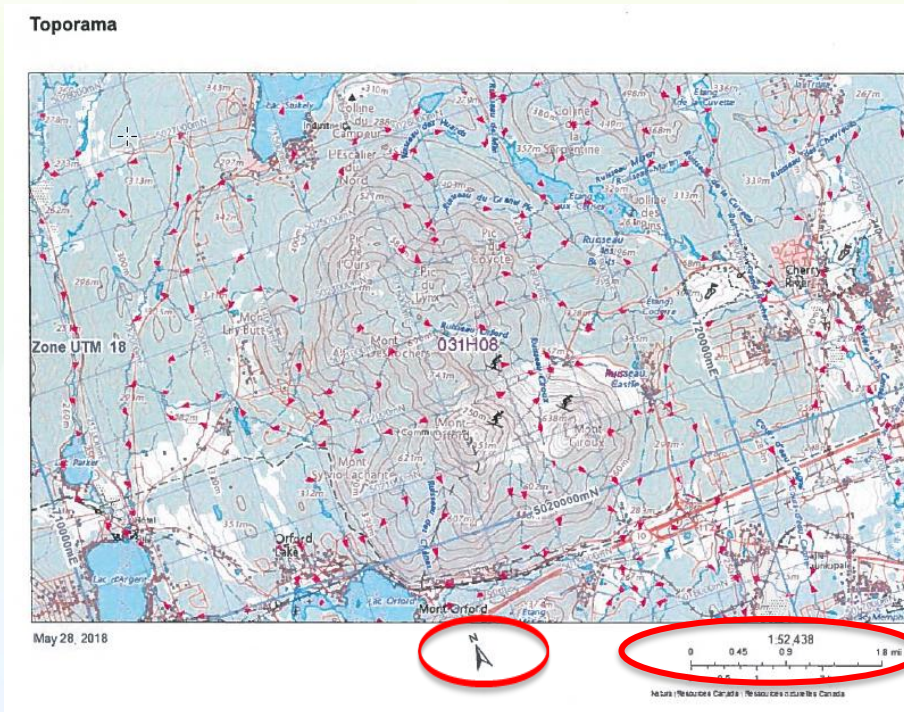


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Print or save map (Toporama interactive)



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What's New section – Visit it regularly!

Stay in touch by subscribing to our RSS Feed.

- [High-Resolution Digital Elevation Model \(HRDEM\) in the Canadian Arctic – New data available!](#) - April 11, 2018
- [CanVec: Update is Now Available!](#) - April 5, 2018
- [National Road Network \(NRN\) – Prince Edward Island: Update Available!](#) - March 1, 2018
- [Reminder: Closing and stopping updates of several Web Map Services \(WMS\)!](#) - December 15, 2017
- [National Hydro Network \(NHN\) - 227 new watersheds](#) - December 6, 2017
- [High-Resolution Digital Elevation Model generated from LiDAR data – Corrections](#) - October 17, 2017
- [National Railway Network \(NRWN\) – British Columbia: Updates Available!](#) - October 4, 2017
- [High-Resolution Digital Elevation Model generated from LiDAR data – New data available!](#) - September 28, 2017
- [Canadian Digital Elevation Model \(CDEM\) – Quebec: Updates available!](#) - August 3, 2017

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Most requested products

**All our geospatial products are free
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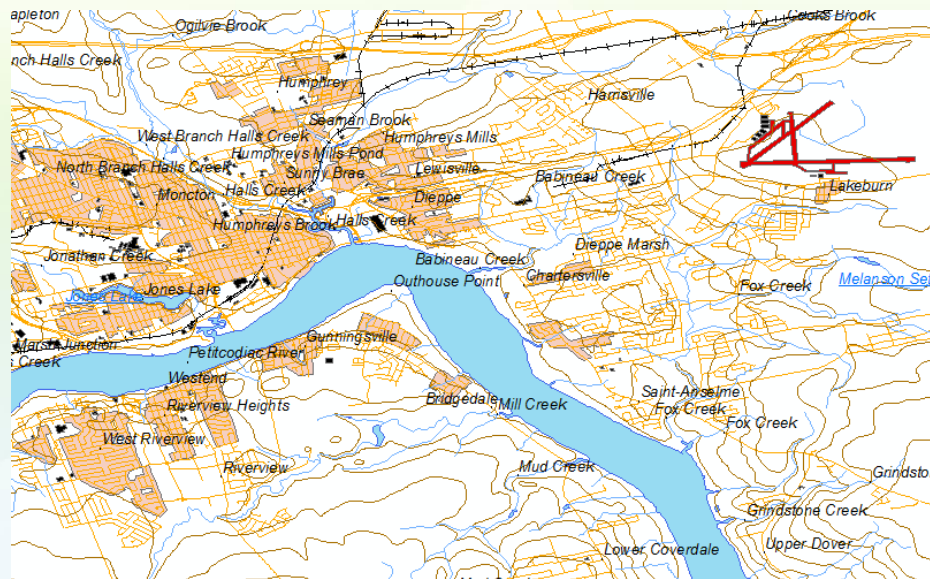


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CanVec



Updates occurs approximately every 2 months

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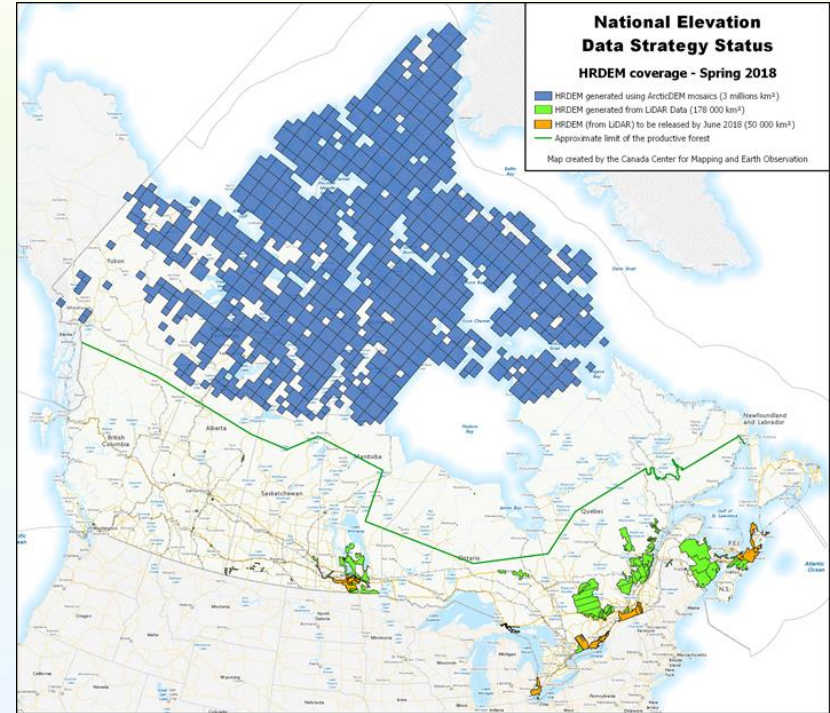
Digital Elevation Model

Canadian Digital Elevation Model (CDEM)
Canadian Digital Surface Model (CDEM)

Résolution: **20 metres**
Complete coverage of Canada

High Resolution Digital Elevation Model
(HRDEM)

Arctic DEM (North of 60°) resolution 5 metres
Lidar data in acquisition resolution 1, 2, 5 metres



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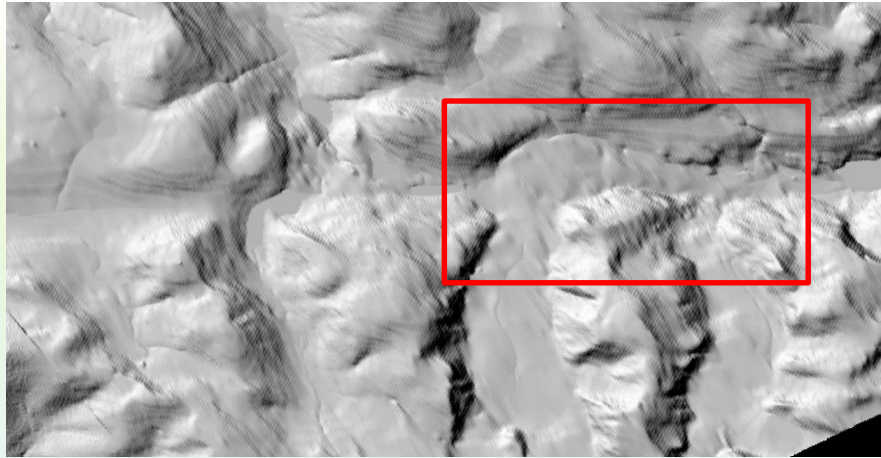


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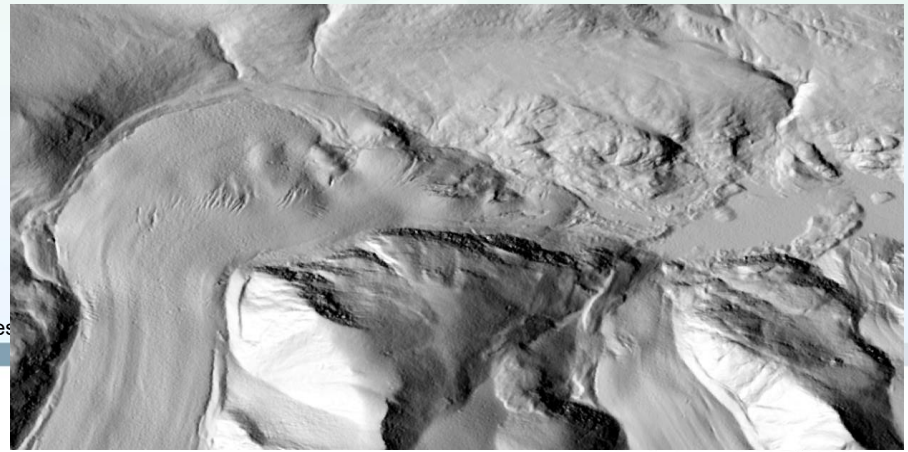
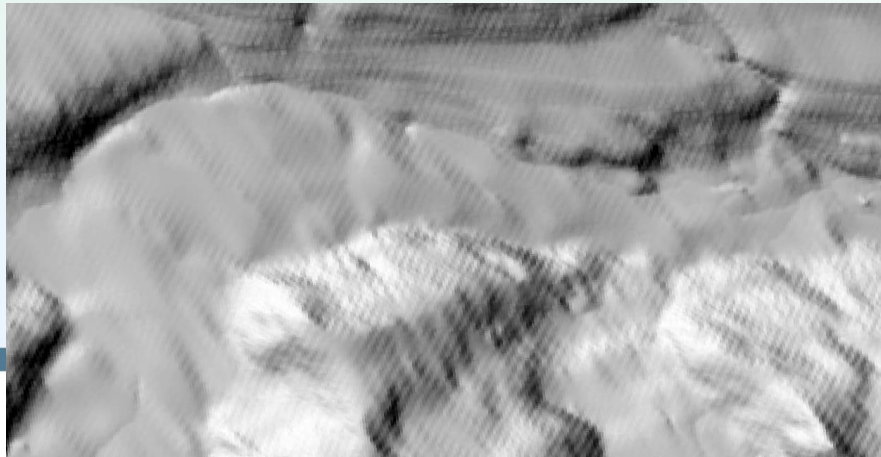
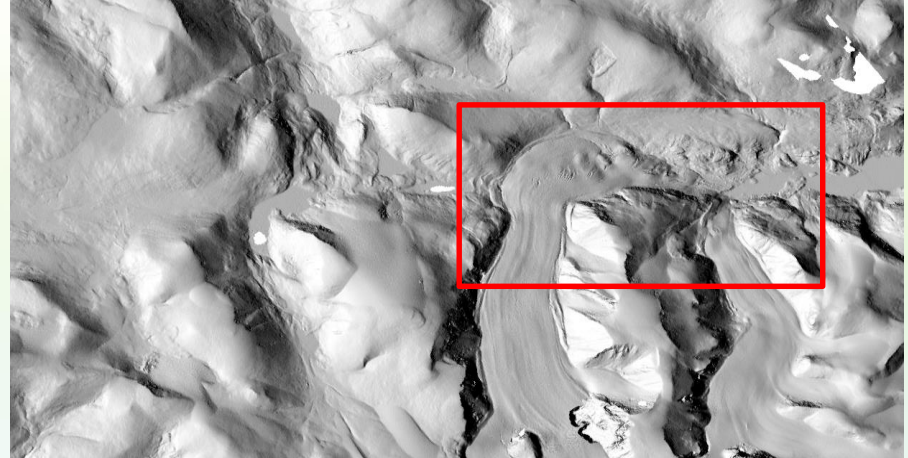
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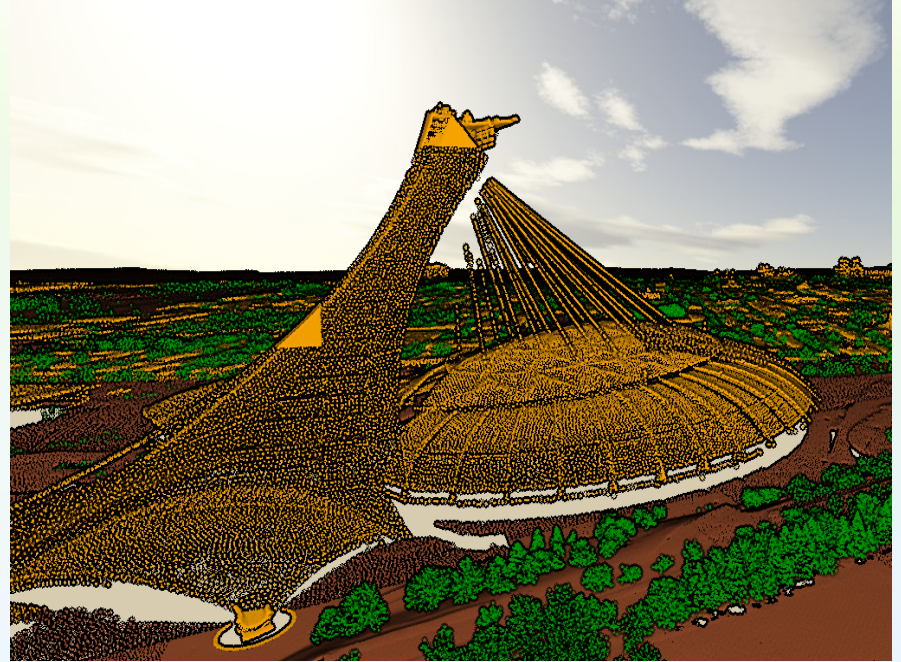
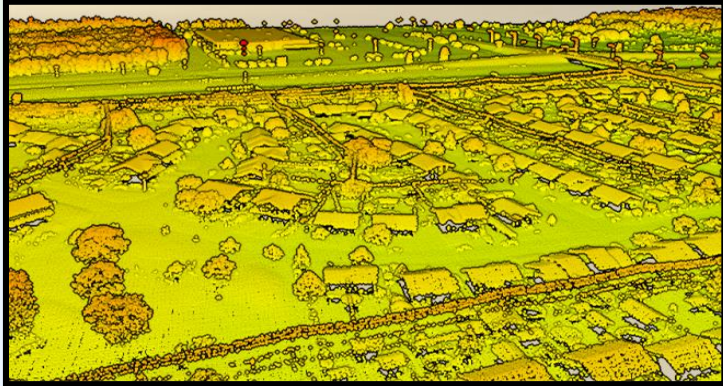
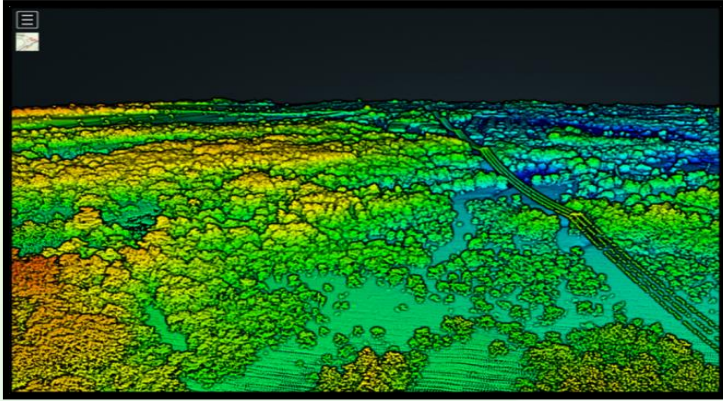
CDEM (20m)



ArcticDEM (5m)



Example of LiDAR data (resolution 1m, 2m, 5m)



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Web Mapping Services (WMS) and API

WMS

- [canvec_en](#) (Topographic data of Canada - CanVec Series)
- [CBMT](#) (Canada base map transport)
- And much more...

API

- [Open Government API](#)
- [GeoLocation API](#)
- [Elevation API](#)

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Questions ?

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