

## **PRODUCT DESCRIPTION**

**Newfoundland Island – sample area (Canada)**

**2D Regional model**

**10m resolution**

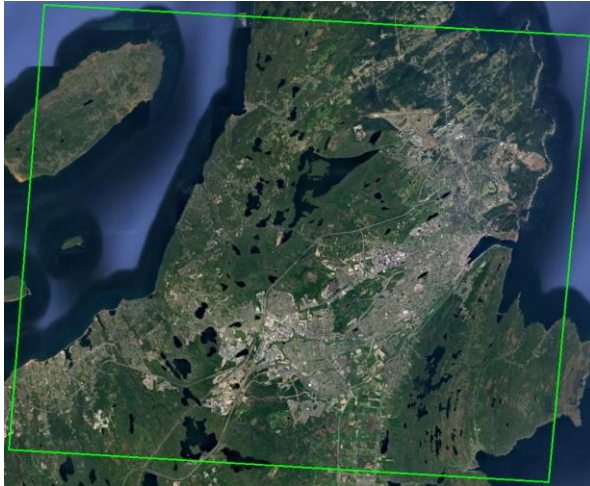
## GENERAL INFORMATION

### Coverage

This geographic product covers 607 sq.km (land area) of Newfoundland sample area as 2D Regional model. The geographic coordinates of the bounding rectangle (reference ellipsoid WGS 84) are the following:

W 59,624532°  
N 52,208364°

W 52,447710°  
N 52,208364°



W 59,624532°  
N 46,433272°

W 52,447710°  
N 46,433272°

### Delivered data formats - Atoll, Mentum Planet

#### "Mentum Planet" package content

The delivered package includes:

- Digital Terrain Model (data contains in the **Heights** folder);
- Land Use Map (Clutter Model) (data contains in the **Clutter** folder);
- Vector Data and Text Label Names (data contains in the **Custom data** folder)

#### "Atoll" package content

The delivered package includes:

- Digital Terrain Model (DTM) (data contains in the **Height** folder);
- Land Use Map (Clutter Model) (data contains in the **Clutter** folder);
- Linear vector basic layers (roads, water, coastline (data contains in the **Vector** folder);
- Text labels (data contains in the **Text** folder);

**Resolution (cell size):** 10 m

**Language** English

## CARTOGRAPHIC REFERENCE

Data are given in geographic coordinates on ellipsoid WGS 84 with the following references:

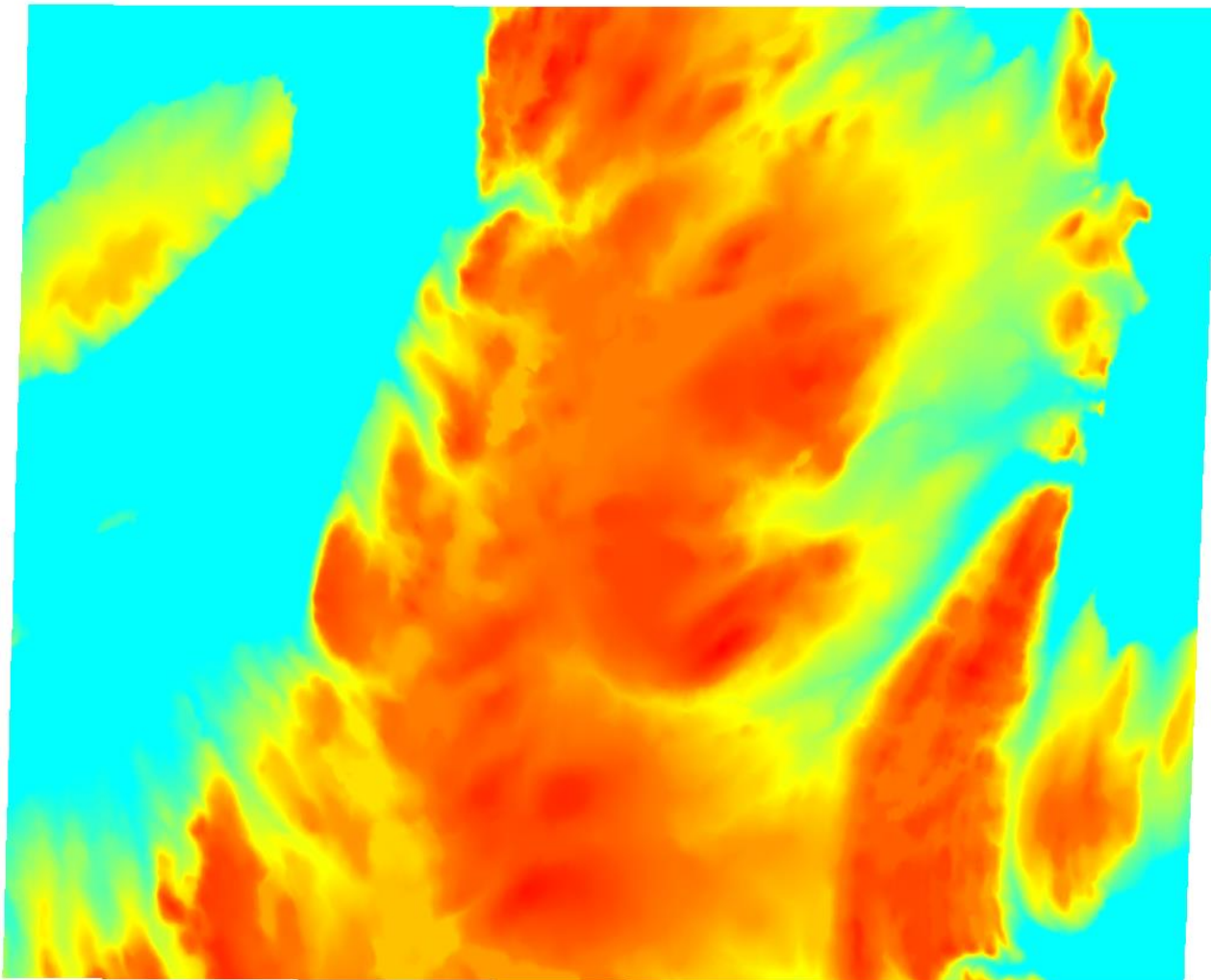
### Ellipsoid

- Name: WGS 84
- Big axis: 6378137.0 meters
- Eccentricity: 0.081819191

### Projection

- Type : UTM 21N
- Azimuth angle : 0.0 degrees
- Longitude 0 : -57.0 degrees
- Latitude 0 : 0.0 degrees
- X axis 0 : 500000.0 meters
- Y axis 0 : 0.0 meters
- Scale factor: 0.9996

### General view



### Meanings of pixel values

Each image pixel stores the value of terrain elevation.

The value of elevation above sea level:

Height = 0 meters	-	0
Unknown values	-	- 9999
Z values unit	-	meters

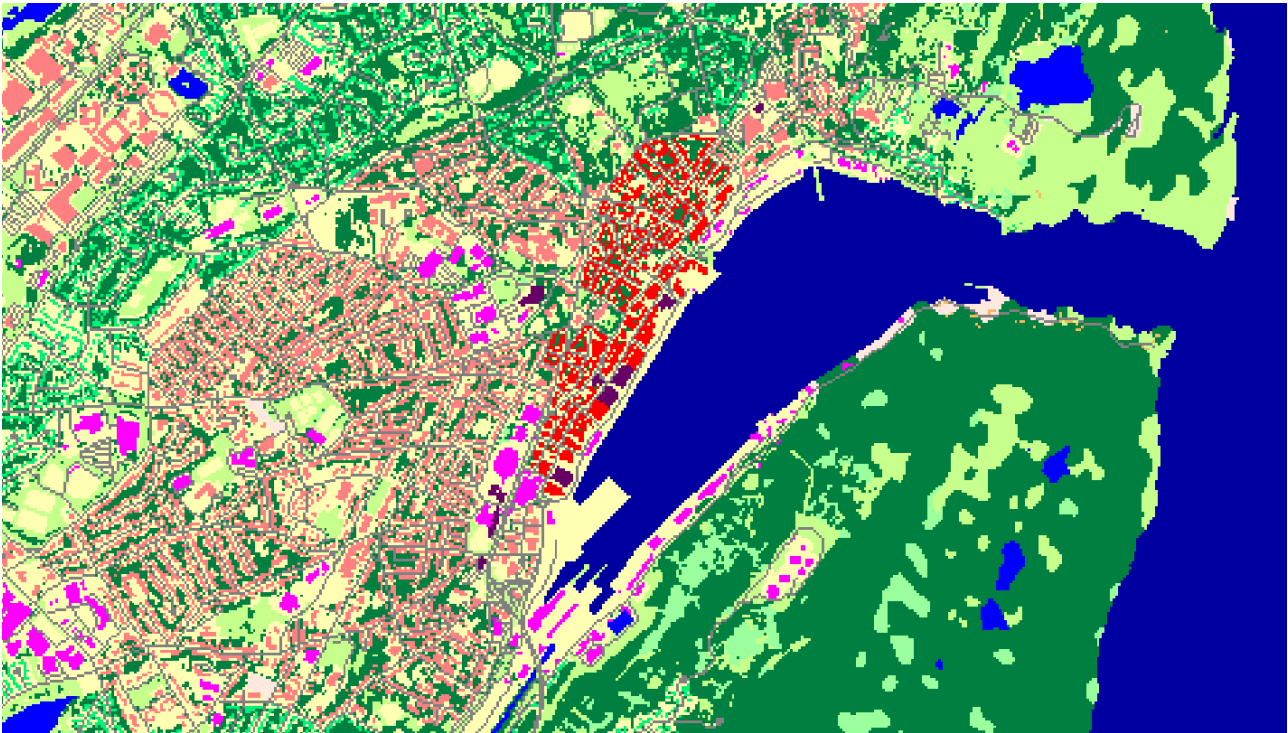
Values of heights submitted in the Baltic system of heights.

Parameters of accuracy	
Resolution (cell size)	10 m
Altimetric accuracy (Z in DTM)	5m LE90

Sources:
Canada open DEM data. Vintage: 2022

LAND USE MAP (CLUTTER MODEL)

Partial view



Parameters of accuracy	
Resolution (cell size)	10 m
Planimetric accuracy (x,y)	15 m CE90
MMU, m	250 sq.m for built-up areas 500 sq.m for other areas

Sources:
Satellite images of 5 m resolution. Vintage: 2022

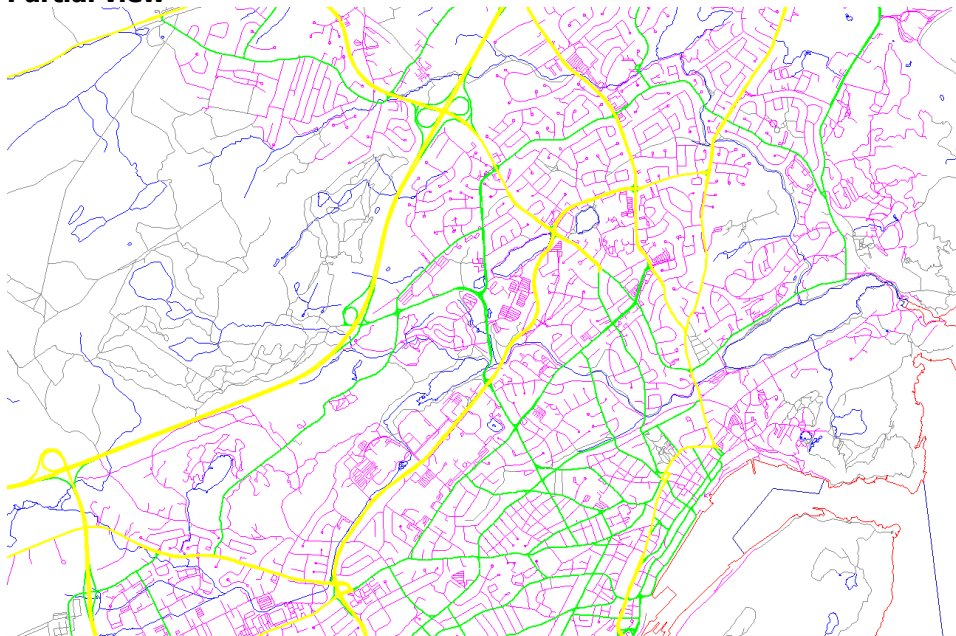
## Meanings of pixel values

The value which is stored with each pixel of image corresponds to the code that represents land type (clutter class). The table of correspondences between codes and clutter class names (21 clutter classes in all) is presented below.

Code (ID)	Clutter Class name	Class Description
1	Open	Open areas outside cities
2	Forest	Forested lands with closed tree canopy. No distinction is made between deciduous and coniferous
3	Sea	Sea and ocean
4	Inland Water	Lakes, rivers or channels
5	Residential with few trees	Houses in suburban environment. Suburban density typically involves laid out street patterns in which streets are visible. Lots may be as small as 30m by 30m, but are typically larger and include vegetation cover with less density. Individual houses are frequently visible. Average height is below 15m
6	Urban	Areas within urban perimeter. The mean urban should have mean street density with no pattern, the major streets are visible, the built-up features appear distinct from each other. Some small vegetation could be included. Average height is below 40m
7	Dense Urban	Areas within urban perimeter. This includes dense urban areas with dense development where built-up features do not appear distinct from each other. It also includes built-up features of the downtown district with heights below 40m.
8	Buildings Blocks	Groups of buildings, either parallel or not, that may be separated by large green space. Average height is up to 30 meters.
9	Industrial And Commercial	Areas including buildings with large footprints separated by streets (factories, shopping malls, storehouses etc.)
10	Villages	Small built-up area in rural surrounding
11	Open In Urban	Small open land area with no vegetation surrounded by mean urban, dense urban or residential
12	Sparse Forest	Forest with less density and scattered trees
13	Airport	Territory of airport
14	Wetland	Swampland
15	Dense Residential	Groups of houses or collectives residential buildings in suburban environment. Suburban density typically involves laid out street patterns in which streets are visible. There is no open space between constructions. Average height is below 15m
16	Residential with trees	Houses in suburban environment. Suburban density typically involves laid out street patterns in which streets are visible. Lots may be as small as 30m by 30m, but are typically larger and include vegetation cover. Individual houses are frequently visible. Average height is below 15m
17	Low vegetation	Areas with low scrub vegetation (bush, grass)
18	Grass	Grassland
19	High Buildings	Isolated cluster of high towers or skyscrapers higher than 40m
20	Barren	Barren lands
21	Sand	Sand and stone areas

## VECTOR LAYERS

### Partial view



#### Parameters of accuracy

Planimetric accuracy (x,y)

15 m CE90

#### Sources:

Satellite images of 5 m resolution. Vintage: 2022

### Vector data classes (8 classes in total):

Nº	Class Name	Class Description
1.	Admin borders	Major admin boundaries
2.	Highways	City highways
3.	Major Roads	Regional motor roads
4.	Streets	Town street axial lines
5.	Secondary Roads	Other roads
6.	Inland water	Coastline of rivers and lakes. Rivers with less than 10 m width
7.	Roads in tunnels	Roads in tunnels
8.	Coastline	Coastline of ocean
9.	Airport	Territory of airport

## TEXT LABELS

### There are 4 text labels:

Nº	Class Name	Class Description
1	Cities	Names of cities
2	Towns	Names of towns
3	Villages	Names of other settlements
5	Water	Names of rivers, lakes, reservoirs, canals, seas