LANTMÄTERIET

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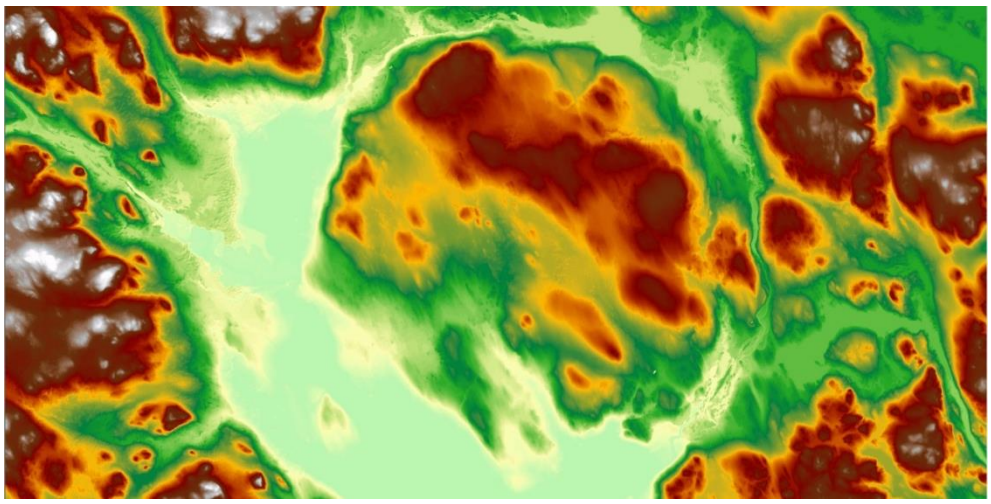
PRODUCT DESCRIPTION

Terrain Model Download, grid 50+ NH

DOCUMENT VERSION: 1.6

Figure 1. Example elevation data.



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1 General description

1.1 Contents

The product Terrain Model Download, grid 50+ NH consist of a terrain model (DTM) in grid form with a resolution of 50 metres.

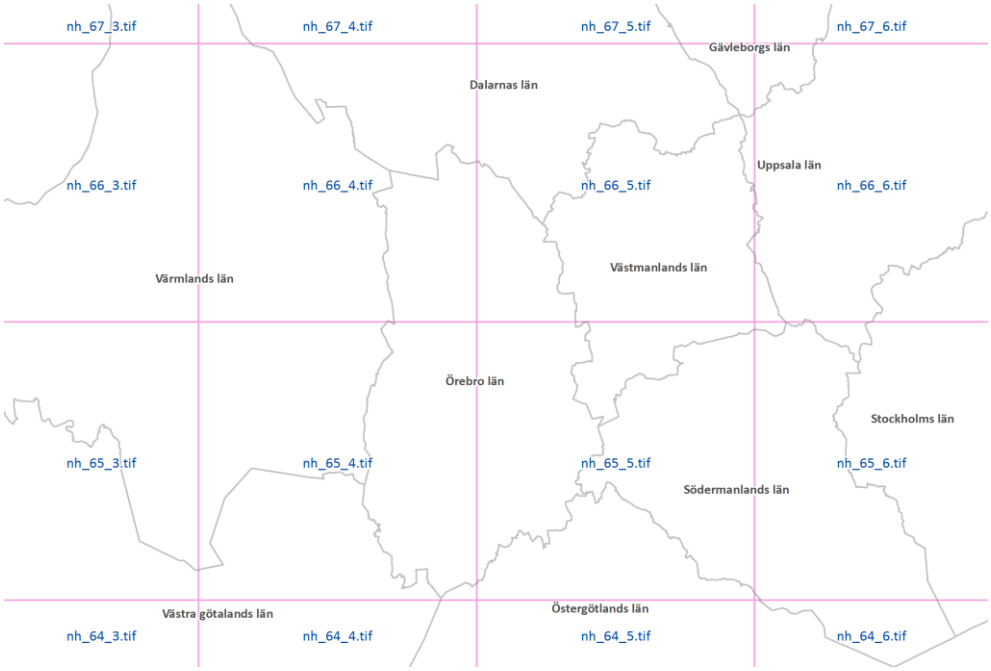
1.2 Geographic coverage

Nationwide.

1.3 Geographic cut-out

The elevation data files are in index tiles of 100 x 100 m.

Figure 2. Division into 100 x 100 km squares.



1.4 Coordinate system

In plane: SWEREF 99 TM

In height: RH 2000

2 Quality description

For detailed information about data capture, production and quality of data used to produce the 50 m grid, see the document *Quality Description of National Elevation Model*, available at website Terrain Model Download, grid 50+.

2.1 Purpose and utility

The product can be used for rough analysis and visualization.

2.2 Data capture

2.2.1 LINEAGE

The product is based on the National Elevation Model with 1 m resolution. From the 1 m grid a 5 m grid is interpolated, then 10 m from 5 m, 20 m from 10 m and finally a 50 m grid. Bilinear interpolation is used for this interpolation. This chain of interpolations means that every height value is representative for a larger area than if the 50 m grid was produced by selecting heights directly from the 1 m grid.

2.3 Maintenance

The terrain model is updated through aerial image matching and with laser data.

2.3.1 MAINTENANCE FREQUENCY

Terrain Model Download, grid 50+ NH is updated once a year with updates from the National Elevation Model.

2.4 Data quality

2.4.1 POSITIONAL ACCURACY

The horizontal standard error amounts to approximately 1 m in moderately hilly terrain. Maximum error can, however, be many times larger. The most significant decline is in very hilly terrain.

The chain of interpolations to produce the grid results in an equalizad landscape – high peaks becomes lower and deep valleys less deep.

2.5 Metadata

Nationwide shape file with date of laser scanning.

3 Data access and contents

Data can be downloaded with Geotorget Beställning or from FTP.

The folders are divided according to Swedish counties. Some files extend over the county border, so if several counties are downloaded, those files will be included more than once.

There is also a folder with nationwide data. Metadata files will be found in a separate folder.

The file name consists of the coordinate of the lower left corner, indicated at 100 km. For example: nh_64_4.tif.

3.1 Format

The product is available in GeoTiff format.

Height values are represented by floating-point numbers and the files are compressed with Deflate. Height value represents the entire area of the pixel (50 x 50 m, PixelIsArea).

The following tags are used for georeferencing and for defining no data values:

- ModelPixelScaleTag (33550)
- ModelTiepointTag (33922)
- GDAL_NODATA (42113)