

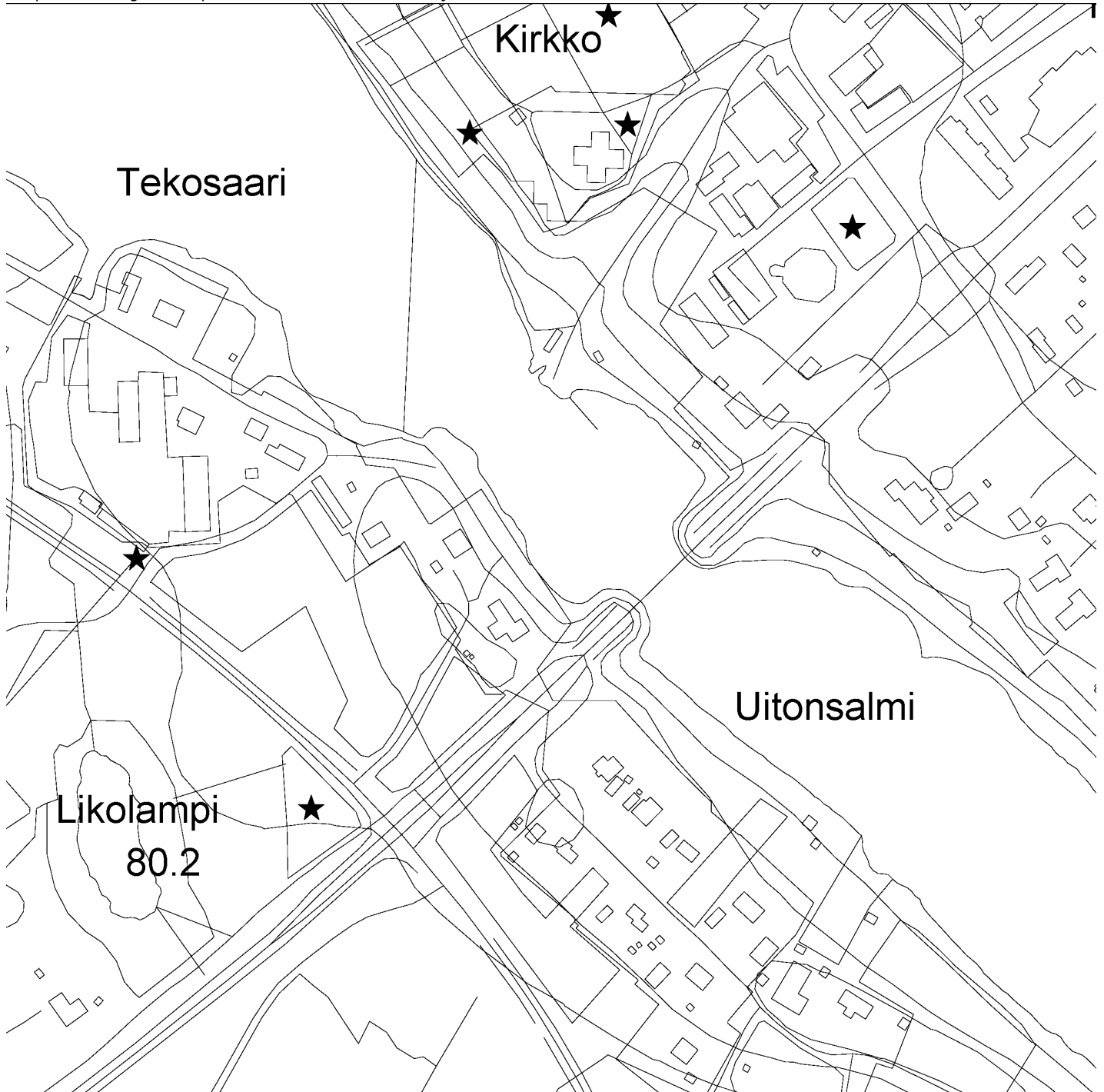
Topographic Database

The Topographic database is a dataset depicting the terrain of all of Finland. The key objects in the Topographic database are the road network, buildings and constructions, administrative borders, geographic names, land use, waterways and elevation.

Aerial photographs, scanning data and data provided by other data providers are utilised in updating the Topographic database. The updating is done in close cooperation with the municipalities. Field checks in the terrain are also needed to some extent, mostly as regards the classification of features.

The topographic database is used in the production of other map products and in various optimisation tasks.

The product belongs to the open data of the National Land Survey of Finland.



Purpose:

The Topographic database in vector format can be used as source data for various map products. The Topographic database is suitable for use as a base map for planning land use and for performing various optimisation tasks and analyses. The Topographic database is also suitable for use for instance in

various applications for positioning, route search, maintenance and data collection that utilise GPS positioning.

Geographic location

Entire Finland

Reference system

ETRS89 / TM35FIN(E,N) (EPSG:3067)

N60 height (EPSG:5717)

Scale

10000

Spatial representation

Vector

Spatial representation info

Full surface graph

Data content

All features of the Topographic database are available in GML format and the Road network with addresses is available as a separate sub-element.

The entire Topographic database is provided as two GeoPackage files. In the file "GeoPackage korkeus" there are the feature classes that describe elevation and in "GeoPackage maasto" there are all other feature classes.

The File service of open data (BETA) also includes the possibility to download GeoPackage files by municipality or based on a delimitation of your choice:

<https://asiointi.maanmittauslaitos.fi/karttapaikka/tiedostopalvelu/1>

(<https://asiointi.maanmittauslaitos.fi/karttapaikka/tiedostopalvelu/1>).

GeoPackage files have built-in example styles that work with QGIS:

<https://www.maanmittauslaitos.fi/geopackage/maastotietokannan-tyylitiedostojen-hyodyntaminen>

(<https://www.maanmittauslaitos.fi/geopackage/maastotietokannan-tyylitiedostojen-hyodyntaminen>).

A more precise description of the topographic data features (in Finnish)

https://www.maanmittauslaitos.fi/sites/maanmittauslaitos.fi/files/attachments/2023/03/Maastotietokohteet_2023.pdf

(https://www.maanmittauslaitos.fi/sites/maanmittauslaitos.fi/files/attachments/2023/03/Maastotietokohteet_2023.pdf).

Topographic database object model:

https://www.maanmittauslaitos.fi/sites/maanmittauslaitos.fi/files/attachments/2019/12/maastotietokanta_kohdemalli_eng.xlsx

(https://www.maanmittauslaitos.fi/sites/maanmittauslaitos.fi/files/attachments/2019/12/maastotietokanta_kohdemalli_eng.xlsx).

Theme division used in the File service of open data (BETA):

<https://www.maanmittauslaitos.fi/geopackage/maastotietokannan-teemoittainen-lataaminen>

(<https://www.maanmittauslaitos.fi/geopackage/maastotietokannan-teemoittainen-lataaminen>).

GML-schema of the Topographic database (in Finnish)

<http://xml.nls.fi/XML/Schema/Maastotietojarjestelma/MTK/201405/Maastotiedot.xsd>

(<http://xml.nls.fi/XML/Schema/Maastotietojarjestelma/MTK/201405/Maastotiedot.xsd>).

Code lists (in Finnish):

<http://xml.nls.fi/XML/Schema/Maastotietojarjestelma/MTK/201405/Koodistot/>

(<http://xml.nls.fi/XML/Schema/Maastotietojarjestelma/MTK/201405/Koodistot/>).

▼ Maintenance

Maintenance

The road network and geographic names are updated continuously, the administrative borders and the buildings yearly. The yearly updating data for the administrative borders are obtained from the dataset Municipal Division.

Other features are updated according to aerial photos one map sheet at a time in connection with a fixed-term updating process every 5–10 years. The updating status can be seen on the map:

<https://tilannekartta.maanmittauslaitos.fi/ipa> (<https://tilannekartta.maanmittauslaitos.fi/ipa>).

The updating plan according to aerial photos can be seen on

<https://hkp.maanmittauslaitos.fi/hkp/published/fi/de4d45c1-1ec0-427d-b9dc-11365562d962>

(<https://hkp.maanmittauslaitos.fi/hkp/published/fi/de4d45c1-1ec0-427d-b9dc-11365562d962>).

In the Topographic database search service (OGC API Features), features are updated every day according to the above-mentioned updating rhythms. The updated features are shown in the service with a delay of two days.

In the NLS MapSite Download geospatial data -section, new files (shape, mif and MTK-GML) are created of the changed map sheets daily. The GeoPackage file covering the entire country is updated monthly.

The free search area and selection of municipality come via the Topographic database search service.

Features that come via these area selections are updated as above.

▼ Quality information

Lineage

The Topographic database is the National Land Survey's most accurate nationwide dataset depicting the terrain of all of Finland. Its positional accuracy corresponds to that of scales 1:5,000–1:10,000.

The Topographic Data Quality Model contains information about which factors form the quality of numeric topographic data and how various quality factors are measured. Moreover, the quality model gives the quality requirements for instance for the positional accuracy, updating frequency, descriptive

attribute data and coverage of topographic data. No quality requirements are set for geometric and topological data.

Different features in the Topographic database have different requirements for positional accuracy, for most man-made constructions the requirement is 3 metres. The positional accuracy of the features in the Topographic database is with a 95 percent probability in accordance with the minimum requirements stated in the quality model.

The up-to-date accuracy of the Topographic databases varies depending on the feature (see Maintenance).

The accuracy of descriptive data (attribute data) varies depending on the feature. For more accurate information, see descriptions of the different themes.

The size of coverage means the share of such features that are missing from the database or that can be found in the database but not in the terrain. Different features have different requirements for coverage.

The quality model (in Finnish):

http://www.maanmittauslaitos.fi/sites/default/files/Maastotietojen_laatumalli.pdf
(http://www.maanmittauslaitos.fi/sites/default/files/Maastotietojen_laatumalli.pdf).

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Service messages

[All service messages \(/en/service-messages\)](#)

- 31.1.2023
Service message

[The MapSite section Download Spatial Data has been published \(/en/service-messages/mapsite-section-download-spatial-data-has-been-published\)](#)

- 28.10.2022
Service message

[Have you tried MapSite's Open data file download service? \(/en/service-messages/have-you-tried-mapsites-open-data-file-download-service-beta\)](#)

- 30.8.2022
Service message

[Open data download service has been developed further \(/en/service-messages/nls-open-data-file-download-service-beta-has-been-developed-further-during-summer\)](#)