National Report
ESTONIA

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NKG WGRF meetings 19-20 May 2022
National GNSS Satellite Data Center

Supports the sustainable development of society through accurate, reliable and operationally available positioning services

Keywords:

- Services
- Users
- Equipment
- Personnel
- Budget
• 29 ELB operated stations
• 1 station from Maritime Administration
• 10 stations from neighboring countries
• GPS+GLONASS+GALILEO,
• 14 meteosensors
• 2 receivers updated/replaced
Assessment of national geodetic network

- II Order Net, test area
  - Summer/fall 2020
  - GeoRefAct 2021 EE
  - Summer/fall 2021
  - Spring 2022
  - Static GNSS, 6h sessions
  - some outsourced levellings in this area for GNSS levelling
Metrology of geodetic instruments

Vääna baseline
13 obs pillars
length ~1.3 km
calibr length ~960 m
Metrology of geodetic instruments

- Update the communication network for meteosensors
- Software updated
- The status of legal metrology is in preparation
- Calibration of LGIA’s total stations in November 2021
- Calibration of ELB’s total station in June 2022 (Vääna/Nummela)
Estonian-Latvian cooperation

- Interreg V-A Estonian-Latvian programme
- Project „Harmonization of Estonian and Latvian geodetic systems in border areas“ (GeoRefAct)
- Project period 2021-2022
- Estonian Land Board and Latvian Geospatial Information Agency
- Activities:
  Measurements and computations of national GNSS and levelling networks in border area, local network of twin-city Valga/Valka and gravity survey in Northern Latvia
  Results: coordinate and height transformation models incl web-based services
GeoRefAct 2021

Directors-General in Valga/Valka

+ 4 levelling lines

Valga/Valka GNSS + traverse + levelling
Revision of geodetic point database

35 000 geodetic points in the geodetic points database

45% from national networks, 55% from local networks

de jure, local authorities are obliged to take decisions on local geodetic infrastructure

In 2021 -> local authorities shall start to take actions
de facto as well

Legislative changes are planned

Discussion about the rearrangement of geodetic points database

New web interface for geodetic point database
Moving Toward the Digital Twin

- 3D Estonia, country-level coverage
- Fully automated processing

31 March 2021  https://3d.maaamet.ee/kaart/

Department of Geoinformatics

Vision: Reality and augmented reality application: 3D buildings, building information, route information

Kirke Narusk ja Andres Kasekamp
ESTHub

ESTHub – a national satellite data centre

Vision, 2021  satiladu.maaamet.ee