



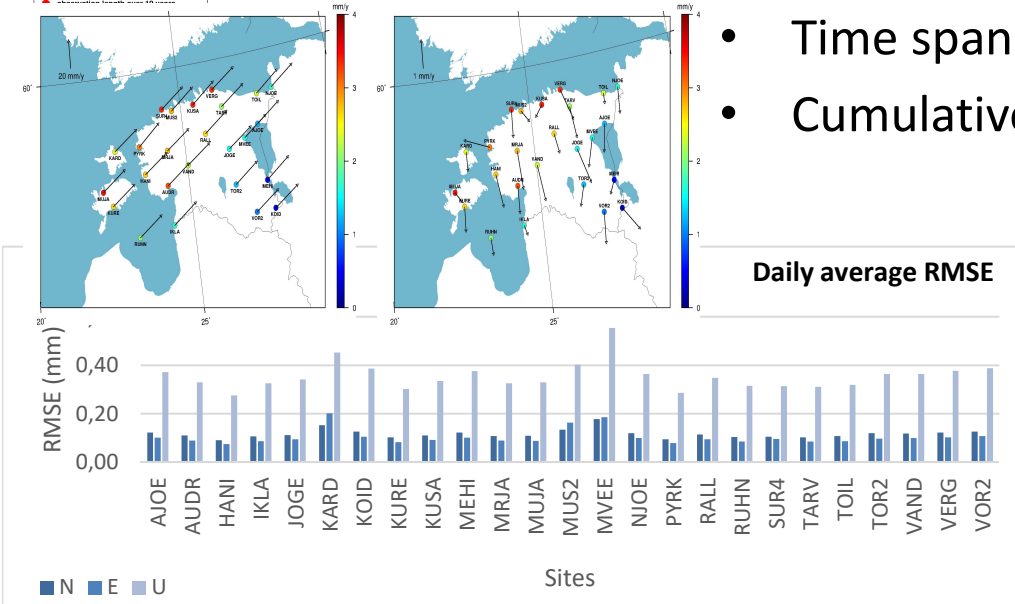
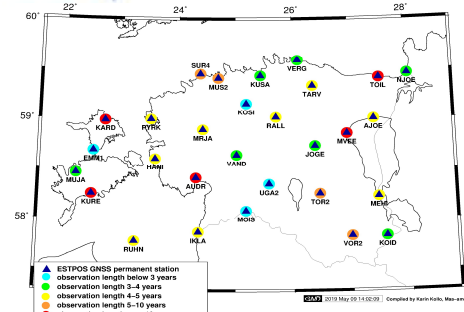
MAA-AMET

National Report of ESTONIA

Karin Kollo, Jaanus Metsar, Priit Pihlak, Tõnis Oja, Artu Ellmann

Estonian Land Board

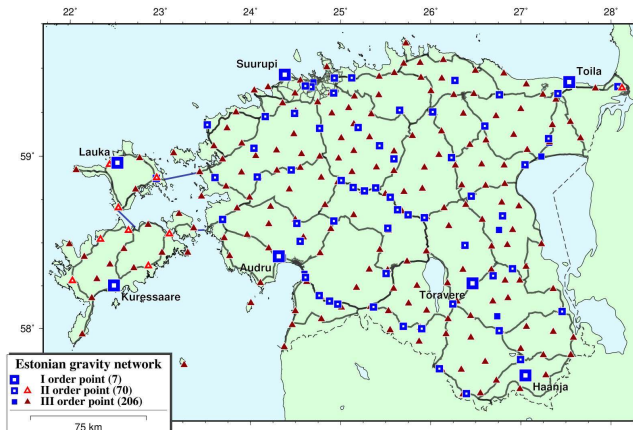
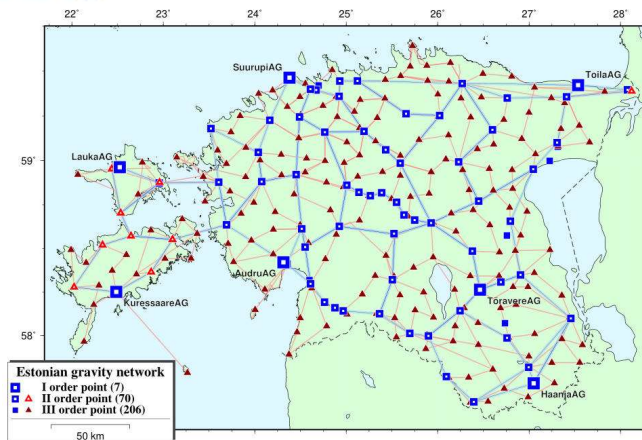
Multi-year solution for ESTPOS



- Included to EPN densification
- Active geodetic system monitoring
- Majority of stations have observations more than 3 years
- Time span 1408-2034
- Cumulative weekly solutions by ELB
- Final coordinates and velocities are given at the epoch 2013.00 (middle epoch of observations)
- Coordinates and velocities in IGS14
- Coordinates and velocities in ETRF89

Gravity frame EG2000

- Based on International IAGBN standards and absolute gravity measurements done in 1995-2017 in Estonia
- Gravity frame EG2000
 - I, II, III order networks
 - Integration with geodetic, height networks



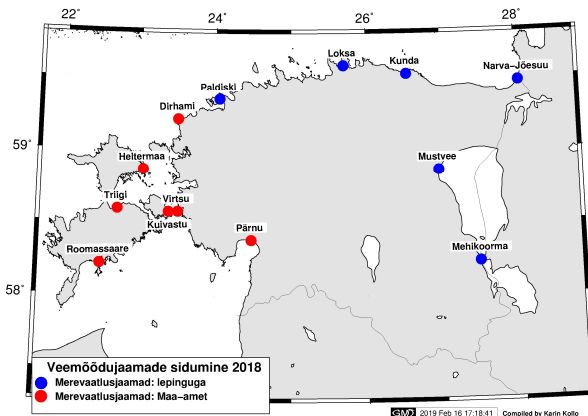
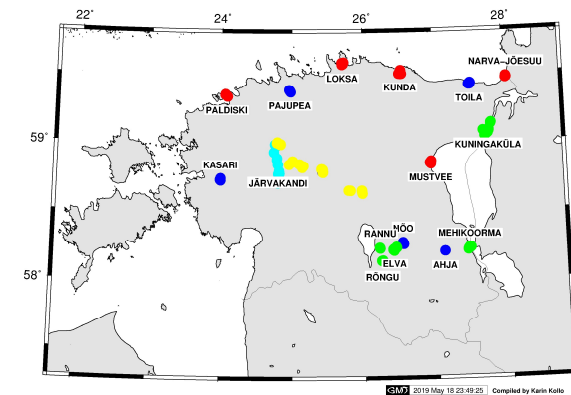
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- Olsson, P.-A., Breili, K., Ophaug, V., Steffen, H., Bilker-Koivula, M., Nielsen, E., Oja, T., Timmen, L. (2018) Postglacial gravity change in Fennoscandia – three decades of repeated absolute gravity observations. Geophysical Journal International, 217, 1141–1156. Doi: 10.1093/gji/ggz054



Connections to EH2000

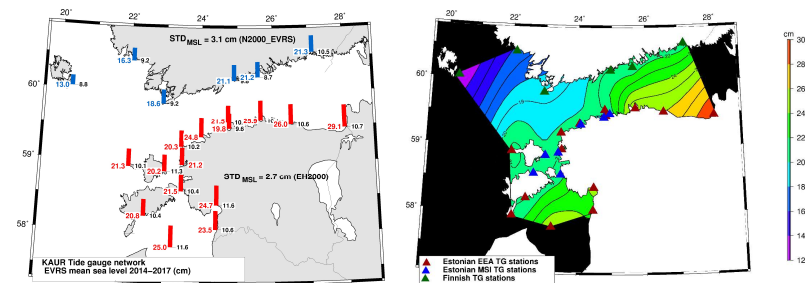
- Connect local levelling networks to EH2000
- 2017-19
- 161 km – 248 benchmarks
- High-precision levelling to check the tide gauge connections
- MSL estimated at the Estonian coast
 - Methodology by Kollo & Ellmann



References:

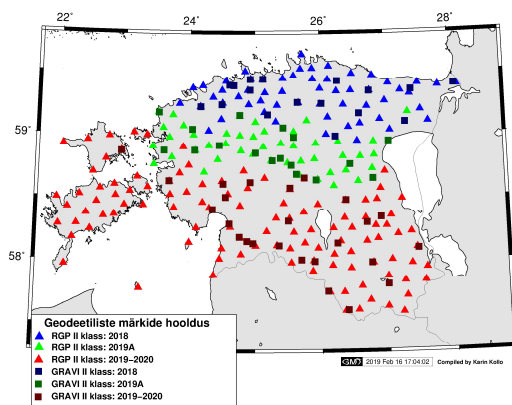
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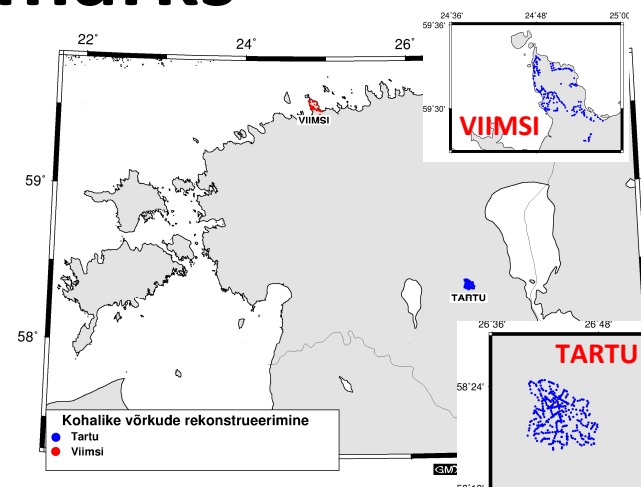


Local geodetic networks & maintenance of geodetic marks

- City of Tartu 2017-2018
 - Reconstruction of local levelling network, incl. translation parameters BK77-EH2000
- Viimsi Municipality 2018-2019
 - Reconstruction of local geodetic network, incl. translation parameters BK77-EH2000



- Maintenance works of geodetic Network points (I and II order National Geodetic Network) ongoing





Estonian GNSS permanent station network (ESTPOS)

- 29 stations
- 9 stations from neighbouring countries
- 1 station from Maritime Administration network
- GPS+GLONASS+GALILEO
- 14 stations with meteosensors
- New site Mõisaküla at the Latvian border

References:

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