

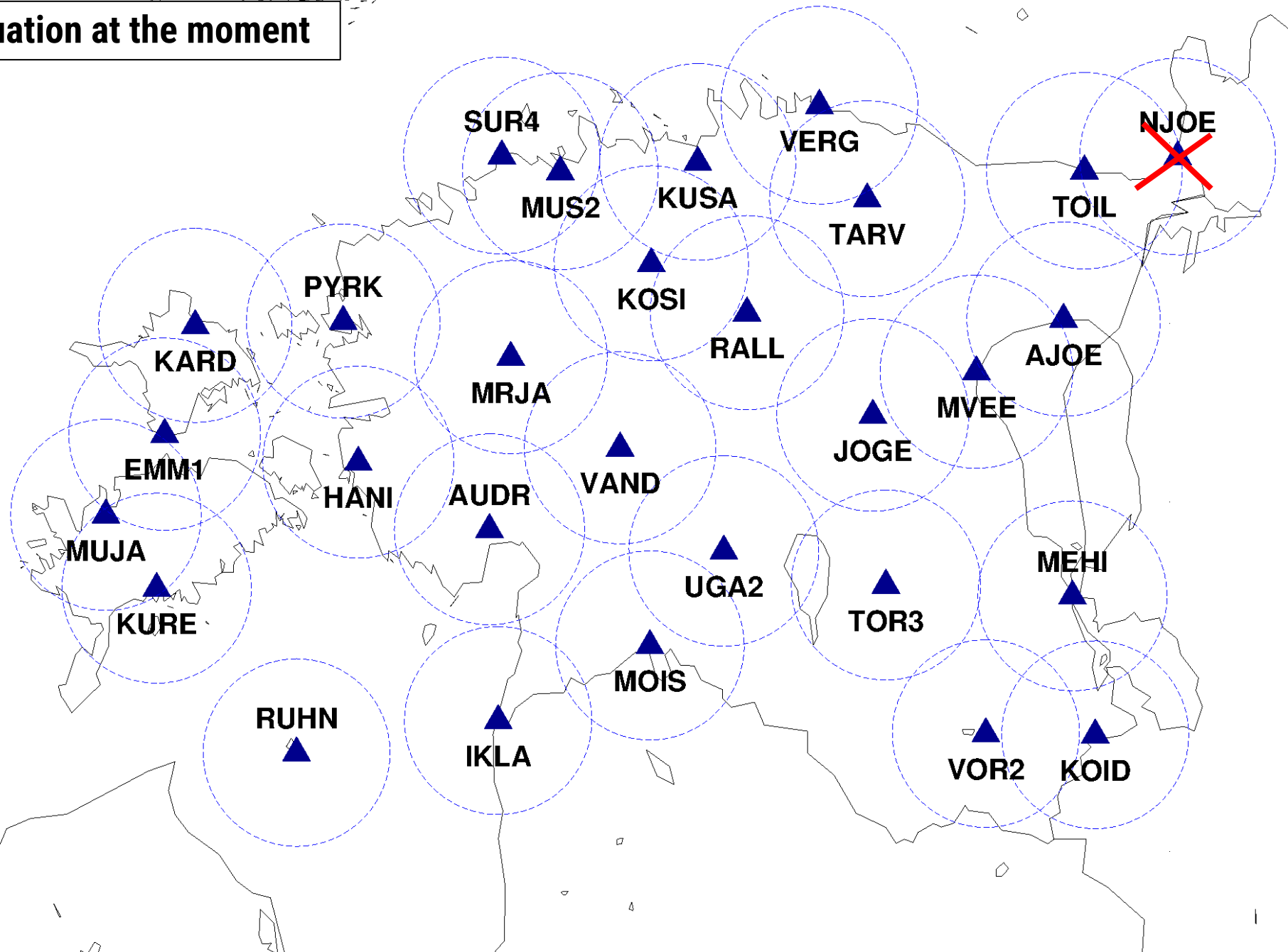


MAA-AMET 30

# National report Estonia 2024

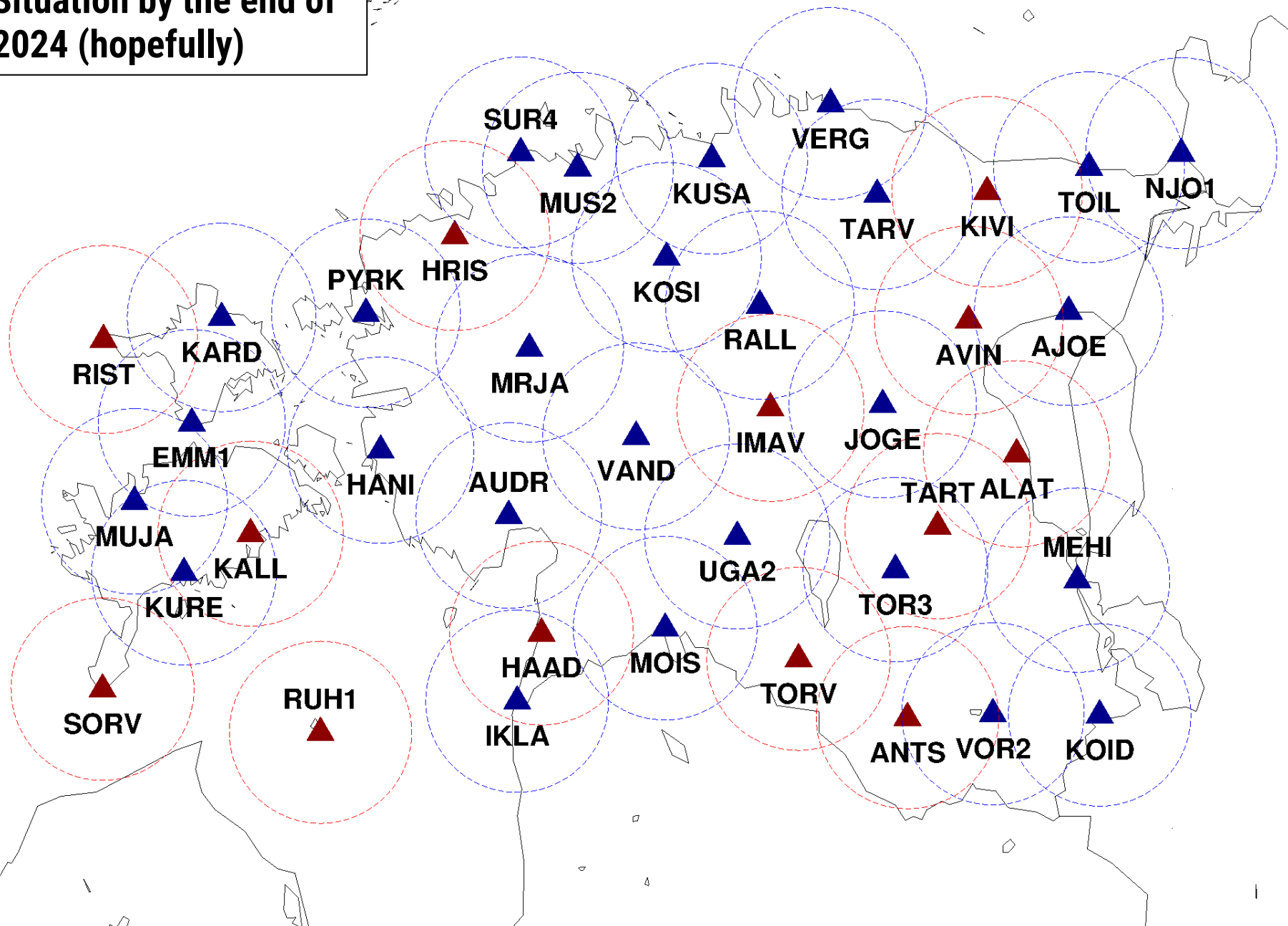
## Situation at the moment

- 28 stations
- Leica GR25 and 2xGR50
- Leica AR25
- No Beidou
- MikroTik routers



## Situation by the end of 2024 (hopefully)

- REPowerEU
- Open tender
- 40 stations
  - 11 new
  - 2 relocated
- Leica GR50 receivers
- Leica AR25 antennas
- Beidou
- MikroTik
- Free to all?



# ESTPOS data quality and GNSS interference monitoring

- Leica SpiderQC and X-Pos
- Leica GR50 + Interference Toolbox

Site Name	Site Code	Satellite System	Receiver	Quality Plots	File Summary	File Availability	Current Status
AJOE	AJOE	GPS GLONASS Galileo	LEICA GR25	AJOE	AJOE	AJOE	✓
AUDR	AUDR	GPS GLONASS Galileo	LEICA GR25	AUDR	AUDR	AUDR	✓
EMM1	EMM1	GPS GLONASS Galileo	LEICA GR25	EMM1	EMM1	EMM1	✓
HANI	HANI	GPS GLONASS Galileo	LEICA GR25	HANI	HANI	HANI	✓
IKLA	IKLA	GPS GLONASS Galileo	LEICA GR50	IKLA	IKLA	IKLA	✓
JOGE	JOGE	GPS GLONASS Galileo	LEICA GR25	JOGE	JOGE	JOGE	✓
KARD	KARD	GPS GLONASS Galileo	LEICA GR25	KARD	KARD	KARD	✓
KOID	KOID	GPS GLONASS Galileo	LEICA GR50	KOID	KOID	KOID	✓
KOSI	KOSI	GPS GLONASS Galileo	LEICA GR25	KOSI	KOSI	KOSI	✓
KURE	KURE	GPS GLONASS Galileo	LEICA GR25	KURE	KURE	KURE	✓
KUSA	KUSA	GPS GLONASS Galileo	LEICA GR25	KUSA	KUSA	KUSA	✓
MEHI	MEHI	GPS GLONASS Galileo	LEICA GR25	MEHI	MEHI	MEHI	✓
MOIS	MOIS	GPS GLONASS Galileo	LEICA GR25	MOIS	MOIS	MOIS	✓
MRJA	MRJA	GPS GLONASS Galileo	LEICA GR25	MRJA	MRJA	MRJA	✓

### Leica SpiderQC v7.8 Quality Report

Program Run: 2023/11/14 11:25:34.55

**File Details:**  
 Observation File: ajoe318i00\_23o  
 GPS Navigation File: ajoe318i00\_23n  
 GLONASS Navigation File: ajoe318i00\_23g  
 Galileo Navigation File: ajoe318i00\_23i  
 Quality Testing: **Pass**

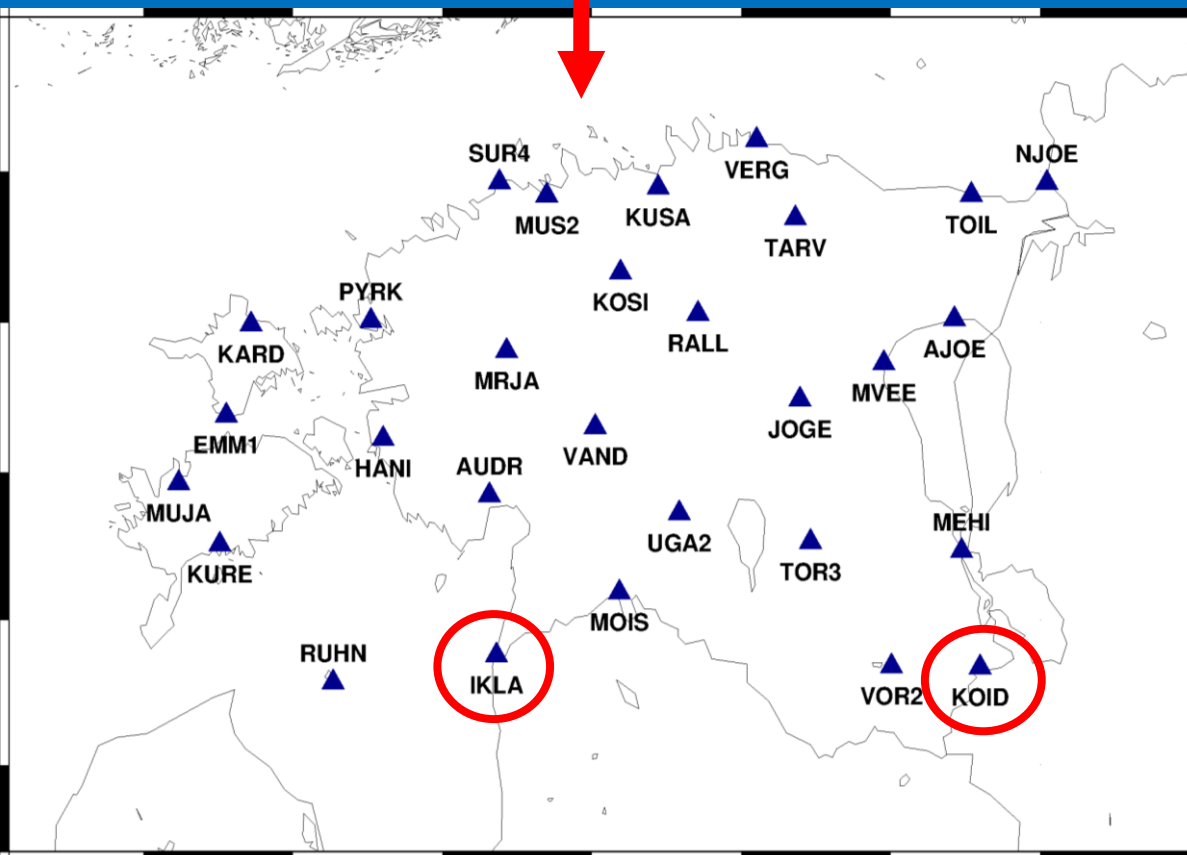
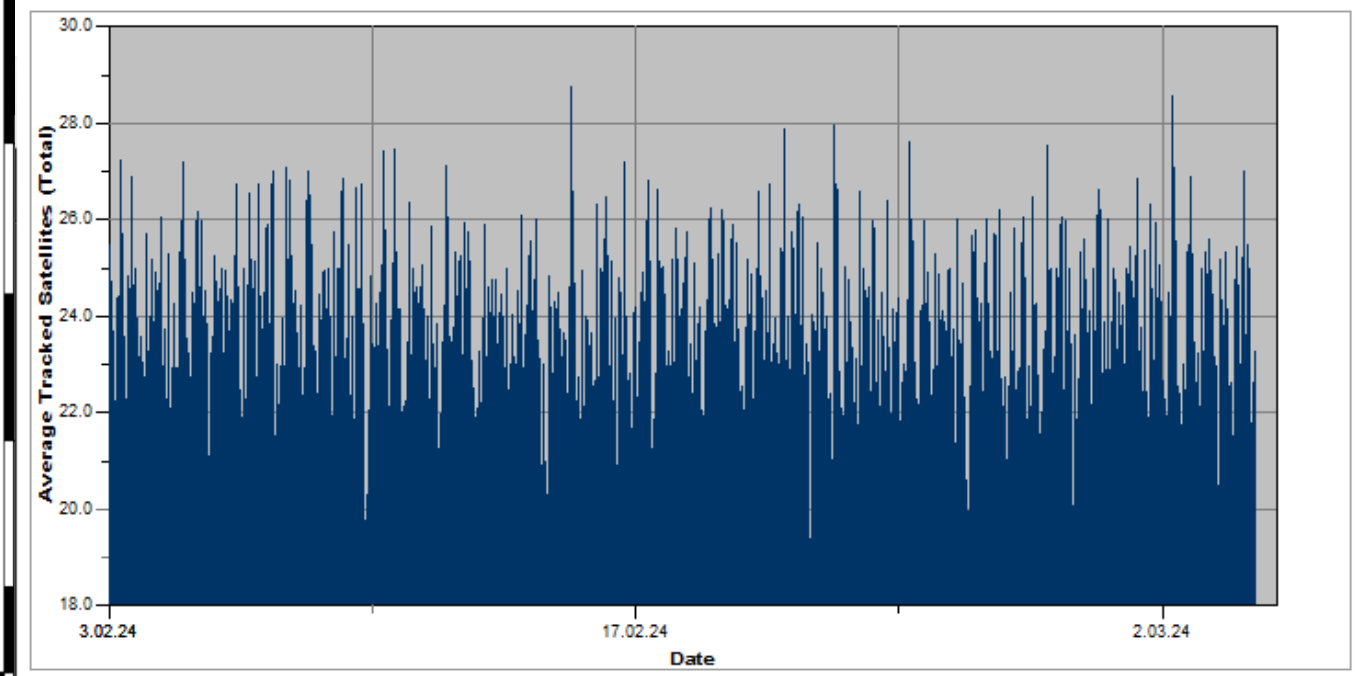
**Station Details:**

Marker Name/Number:	AJOE	10653M001
Observer/Agency:	ELB	ELB
Receiver #/Type/Vers:	1831301	LEICA GR25 4.70/6.525
Antenna #/Type:	726136	LEIAR25.R4 LEIT
Antenna Offsets (HEN):	0.000	0.000 0.000

## AJOE Quality Plots

[Site Overview](#) | [Quality Plots](#) | [File Summary](#) | [File Availability](#)

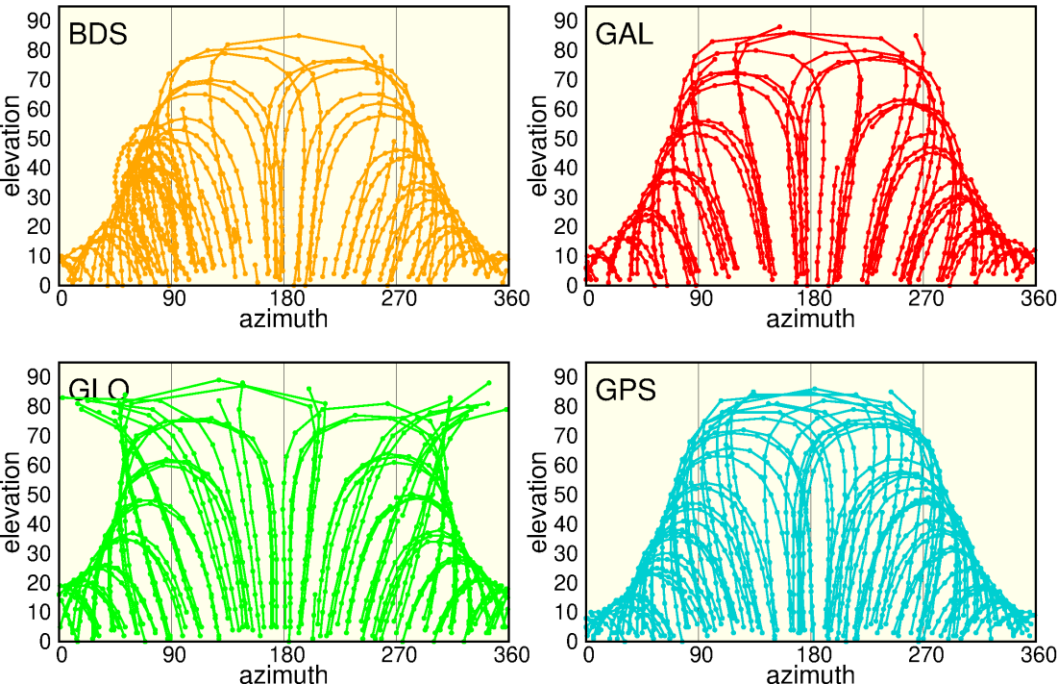
Number of Satellites (Total): The number of satellites should be 5 or greater for high accuracy positioning.



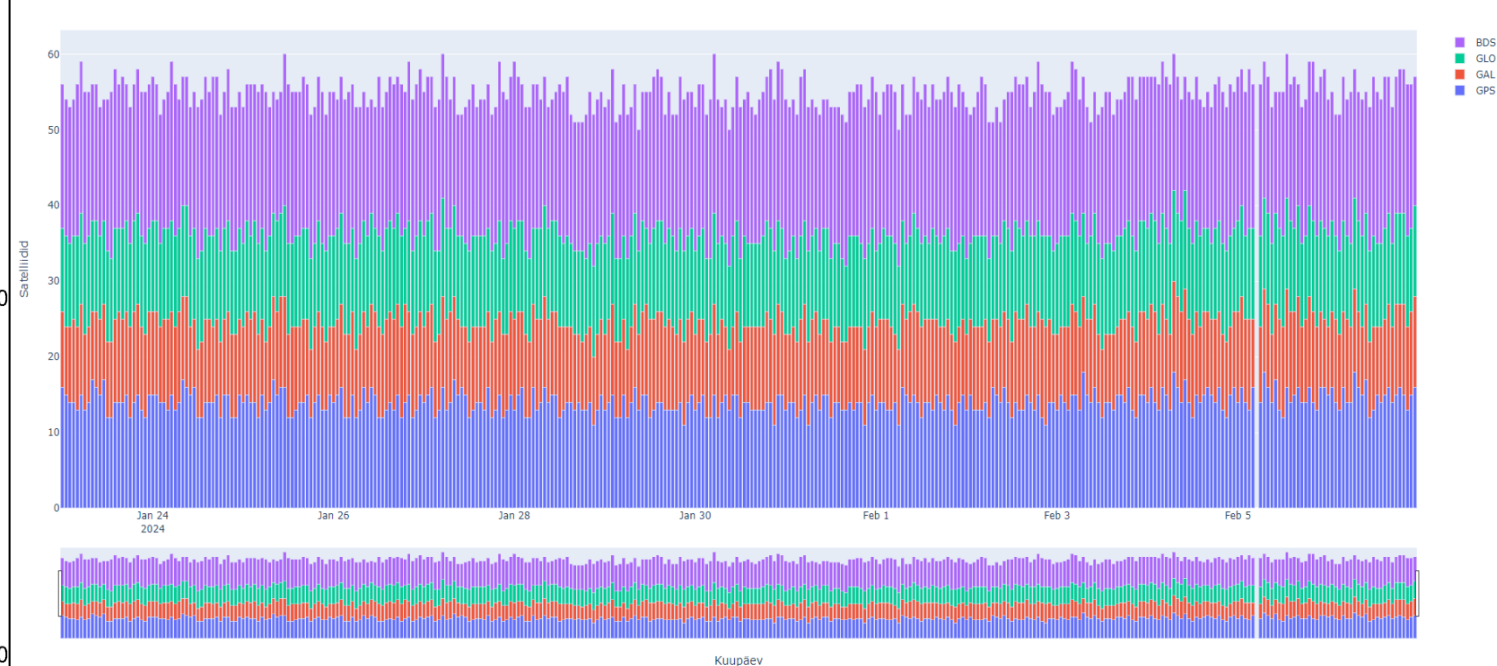
# ESTPOS data quality and GNSS interference monitoring

- Anubis, Perl, Python -> output to a website
- Daily skyplots from 24h30s data
- 30-day interactive graphs based on 1h1s data (nr satellites, cycle slips, multipath, SNR, DOP)
- Near real-time output for SNR in the future

ikla-2024-063 – Satellite sky tracks (azimuth–elevation plot)

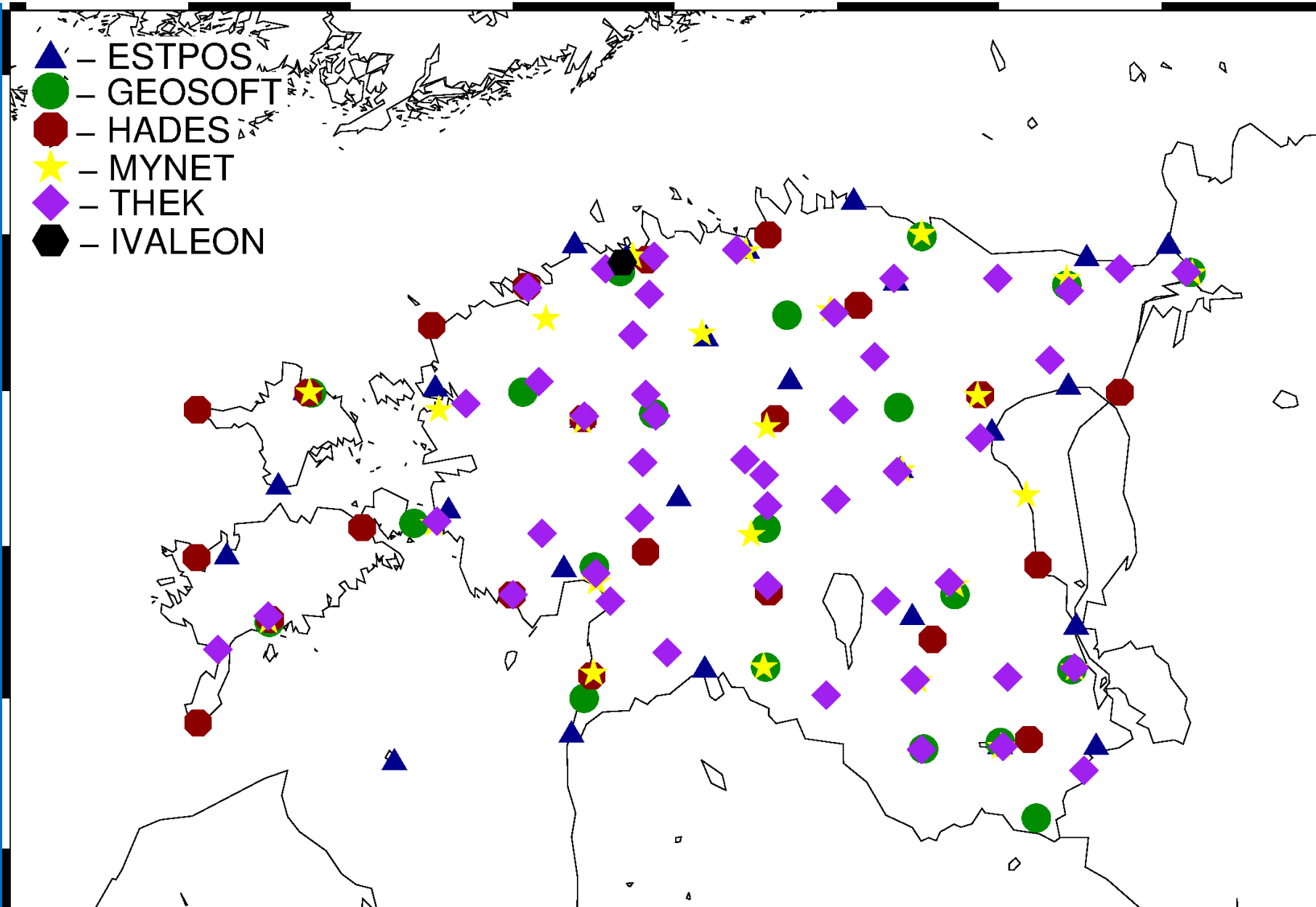


Graafik Satelliitide arv



# Validation of commercial networks

- ESTPOS will be the basis
- 4+1 commercial networks
- ~140 stations
- Bernese GNSS software
- Official legislation changes are underway
- Regular inspection once a year, otherwise as is needed



# GNSS computations

- Operational
  - On track, delays only due to vacation
  - ESTPOS + 11 IGS/EPN (~40 stations)
  - 99% automatic
- Repro2
  - Started and running
  - GPS week 1408 (same as repro1)
  - 2 years done, 14 to go
  - What do we upload to the FTP exactly?

# Official stuff

- Since July of 2023 – Land Board is officially under the rule of Ministry of Regional Affairs and Agriculture (before it was the Ministry of Environment)
- Since August of 2023 – Karin Kollo has been also the acting head of the Photogrammetry department. A new department on the basis of Geodesy and Photogrammetry called the Department of Geodesy and Aerial survey was formed.
- 2025? – On the basis of Land Board a new state office called Land and Spatial Board (Maa- ja Ruumiamet or MARU) will be created. It will bring together all the land and spatial data authorities from different state offices to form a new competence center