



NATIONAL REPORT – SWEDEN

NKG WORKING GROUP OF REFERENCE FRAMES
NKG WORKING GROUP OF GNSS POSITIONING

13–14 MARCH, 2024



NEWS FROM SWEPOS™

- Automated and simplified handling of subscription orders – now including automated handling of agreements
 - Users sign the agreements digitally
 - Signed agreements are documented and digitally archived during the automated process → decreased workload of the SWEPOS staff and the archive staff
- New price list: Reduced prices for Network RTK subscriptions

MORE NEWS FROM SWEPOS™

- Since 29 February, the Network RTK Service provides Beidou corrections, in addition to GPS, GLONASS and Galileo
- The Post-processing Service version 3.0 will be released in the beginning of April
 - Full RINEX 3 support (actually, RINEX version independent)
 - GPS/GLO/GAL possibility
 - Possibility of separate RINEX QC
 - Based on Bernese GNSS Software 5.4, Anubis and in-house developed Python-based software



ANTENNA HEATING SYSTEM

- To prevent snow accumulation on radomes
- Installed at two fundamental stations
 - Works fine in Sundsvall
 - Snow sticking to the lower part of radome in Kiruna
- A few radome types for test
 - Radome with bottom plate in Kiruna
 - OSOS vs TPSH in Mårtsbo/Gävle



Wide-brimmed OSOD radome to the right.



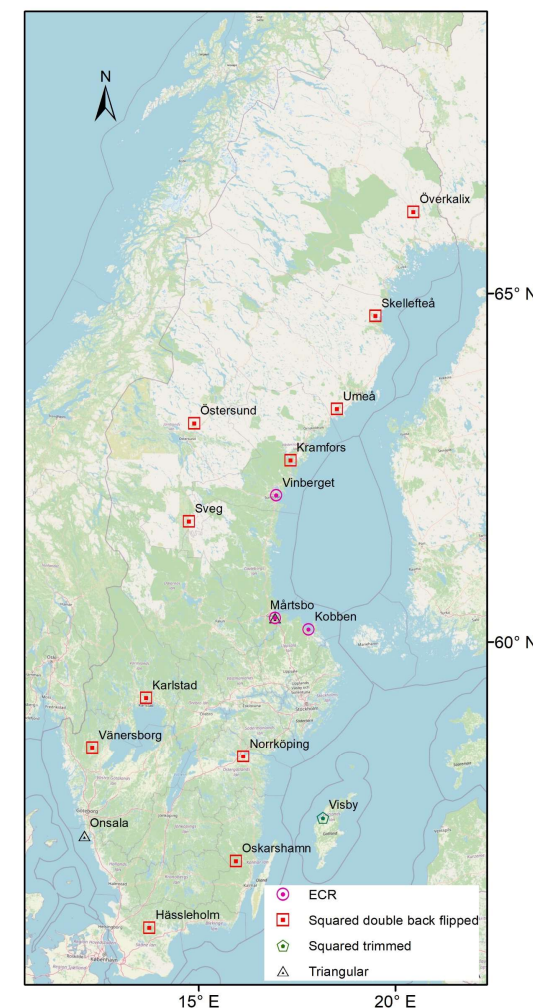
OSOD radome with bottom plate to the left, OSOS radome to the right.

INSTALLATION OF InSAR CORNER REFLECTORS

- 2022 – Visby, Sveg, Östersund, Umeå, Skellefteå
- 2023 – Karlstad, Vänersborg, Oskarshamn, Kramfors, Överkalix, Hässleholm
- 2024 – Installation of another 5 CRs planned
- Active transponder in Kobben sent to manufacturer in Italy for repair



Squared double back-flipped CR in Karlstad.



RINEX DATA RESTORED FROM TAPE

- SWEPOS phases out their last internally maintained IT hardware
→ no longer possible to handle archive tapes
- Therefore RINEX data have been restored to disk → advantages
 - All data easily available
 - 1 Hz data from year ~2000 on, are now available on disk

~130 million RINEX 3 files
~170 million RINEX 2 files
Totally ~120 TB - includes
both daily and hourly files

GNSS ANALYSIS

- During 2023 on, a lot of effort was put into getting Bernese 5.4 in operation, using IGS20 products
- EPN-repro3 well in progress

THANKS FOR YOUR ATTENTION!

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