
National Report of Sweden

- geodetic activities at Lantmäteriet

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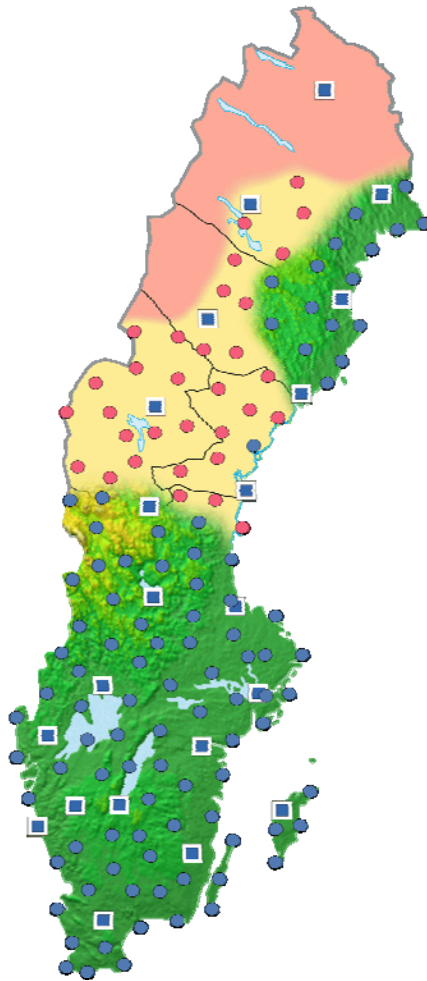
SWEPOS



- Currently 125 stations
 - 21 are fundamental
 - 7 EPN
 - 5 IGS
- 28 more stations operational during August/September 2007
- Lantmäteriet operates the NKG EPN Local Analysis Centre in co-operation with Onsala
- SWEPOS is also the “carrier” of SWEREF 99, the Swedish realisation of ETRS 89



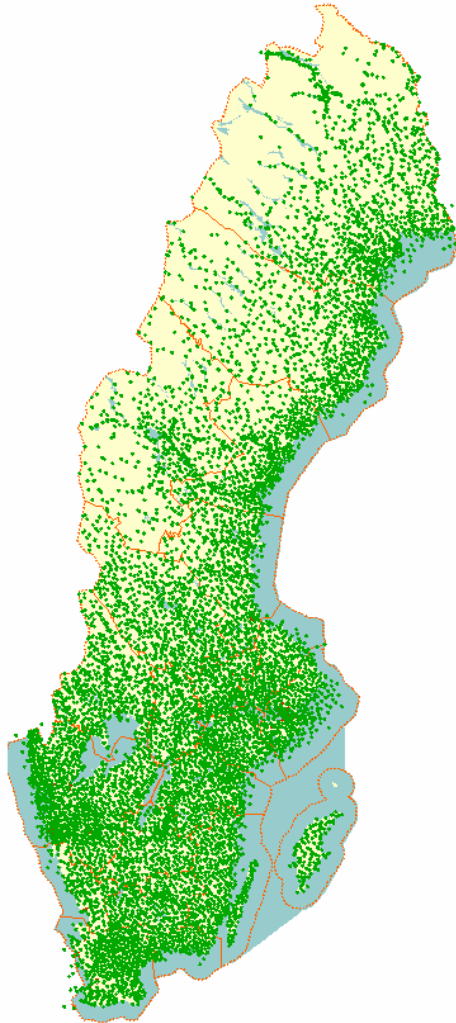
— SWEPOS Network RTK Service —



- Approximately 800 subscriptions (May 2007)
- The “yellow area” will be completed this year
- Users within the “pink area” are directed to SWEPOS' automated post-processing service
- Further info: www.swepos.com



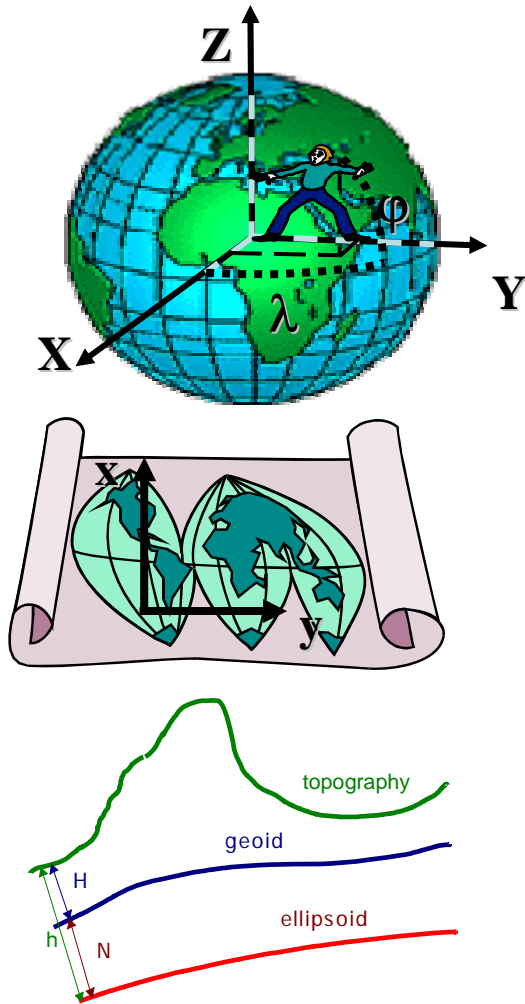
RIX 95



- GPS measurements on 9029 known control points
- Used for e.g. connection of local coordinate systems to SWEREF 99
 - Transformation parameters for 240 (out of 290) Swedish municipalities are now available
 - The project will be completed by the end of 2007



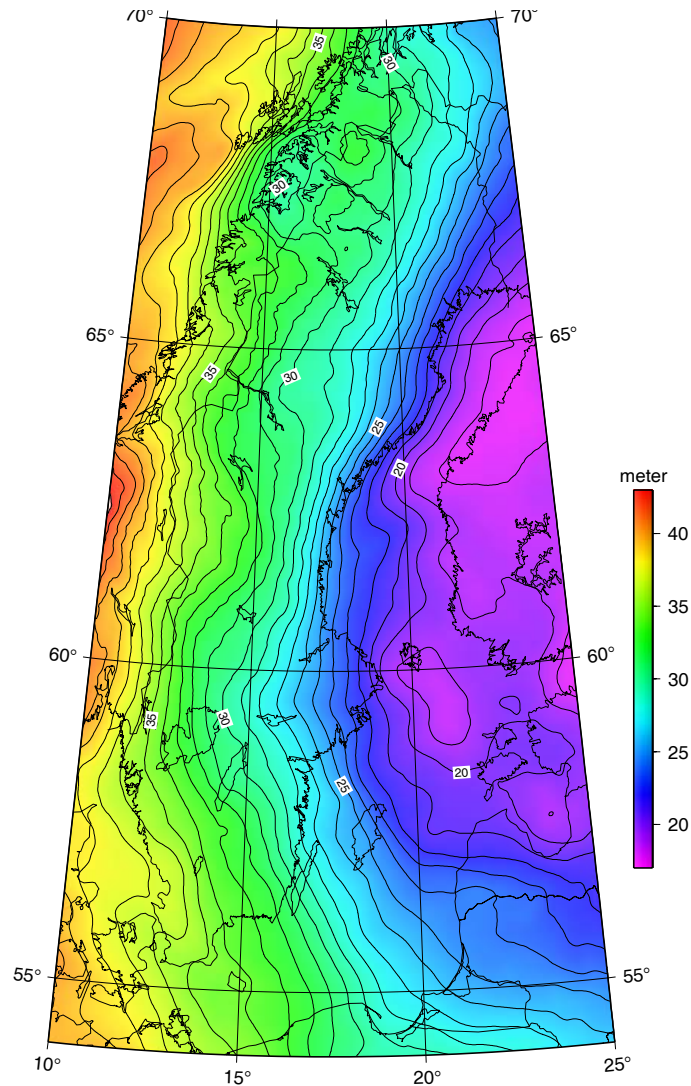
New Reference Systems



- Implementation at the national level
 - In January 2007, RT 90 was replaced by SWEREF 99 in databases and production lines at Lantmäteriet - and new map sheet divisions and a new index system were adopted
 - This summer, the third precise levelling will continue on the island of Gotland
- Implementation of SWEREF 99 and RH 2000 in the municipalities
 - 14 municipalities have made a change to SWEREF 99; around 100 have initiated this work
 - A slower process regarding RH 2000: 6 projects finalised – around 50 initiated



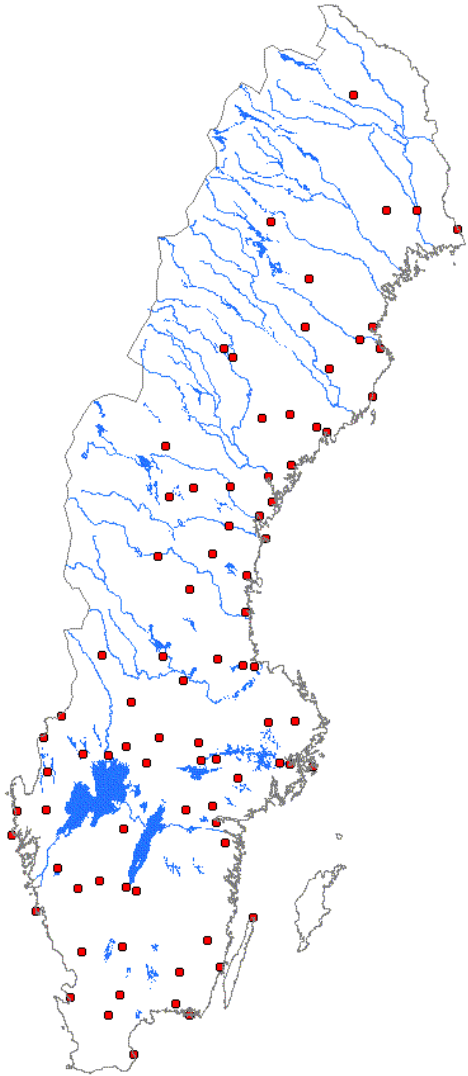
Geoid Models



- SWEN05_RH2000: Adoption of the gravimetric geoid model NKG2004 to the reference systems SWEREF 99 and RH 2000 (GPS/levelling and a modelling of the fit residuals)
 - Expected standard errors:
1,5 – 2 cm in most parts of the country
- SWEN05_RH70: a corresponding model related to the old height system RH 70



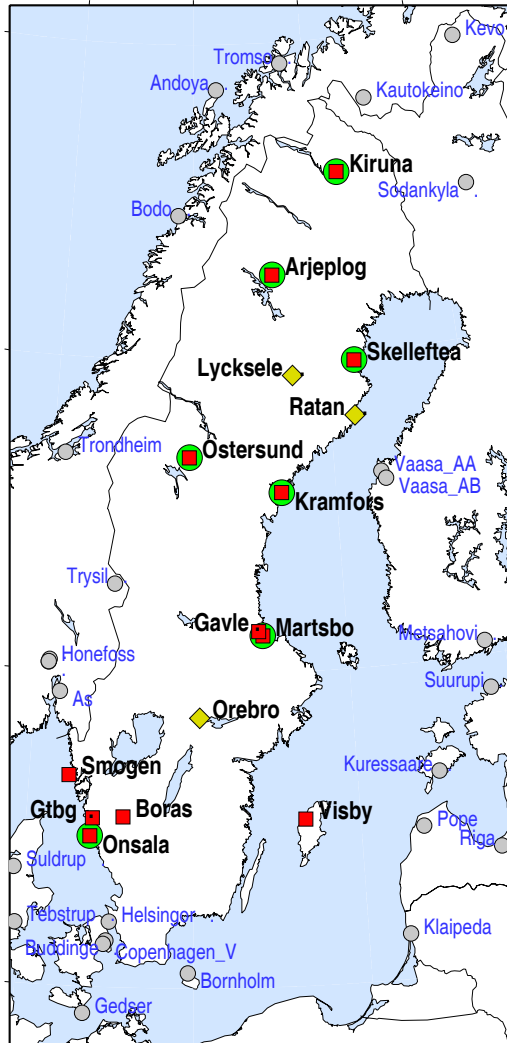
Contribution to EUVN_DA



- Sweden has delivered 87 stations to EUVN_DA
- During 2007, there will be a further densification with 42 points – including the mountainous areas up in NW



Absolute Gravity Measurements



- In 2006, a new absolute gravity meter (FG5) was purchased by Lantmäteriet

Absolute gravity sites (left):

- sites in Sweden (red squares)
- planned new sites (yellow diamonds)
- sites in neighbouring countries (grey circles)
- sites observed every year since 2003 (green circle as background to the red square)

