

Sweden (SWEN08_RH2000)

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Status: PUBLIC

Description:

SWEN08_RH2000 is a Swedish height correction model that has been computed by adapting the Swedish gravimetric quasigeoid model KTH08 to the Swedish three-dimensional reference system SWEREF 99 (ETRS89 realization) and to the modern Swedish height system RH 2000 (EVRS realization). It is referred to the GRS 80 ellipsoid and extends from 54°N to 74°N and from 10°E to 25°E with a grid spacing of 1.2'x2.4'. The model includes permanent tide and postglacial land uplift corrections and is derived by first shifting the gravimetric model (KTH08) and then adding a smooth residual surface computed by least squares collocation based on an updated Swedish GNSS/levelling dataset. The standard uncertainty of SWEN08_RH2000 has been estimated to 10-15 mm everywhere on the Swedish mainland with exception of the area to the north-west not covered by the third Swedish precise levelling. The standard error is larger in the latter area and at sea, probably around 5-10 cm.

References:

J. Ågren (2009) Beskrivning av de nationella geoidmodellerna SWEN08_RH2000 och SWEN08_RH70. Reports in Geodesy and Geographic Information Systems, 2009:1, Gävle, Sweden.

J. Ågren, L E Sjöberg and R Kiamehr (2009) The New Gravimetric Quasigeoid Model KTH08 over Sweden. Journal of Applied Geodesy 3: 143-153.

Grid formats:

The grid is made available in three different formats:

1. GRAVSOFTE ASCII-format (*.txt)
2. GRAVSOFTE binary format (*.grd)
3. A row-wise ASCII format with one height anomaly per row with the latitude and longitude explicitly given using the same order as in the GRAVSOFTE ASCII-format (*.dat)