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(Working Committee of the Surveying Authorities of the States of the Federal Republic of Germany)

EUREF Symposium 2009
Florence, May 27 - 29
• The Geodetic Observatory Wettzell of the BKG is a principal cornerstone for the service of the International Association for Geodesy (IAG) and therefore also for the global, European and German reference systems for position, height and gravity.

• Together with the Forschungseinrichtung Satellitengeodäsie (Satellite Geodesy Research Facility) of the Technical University München, this observatory has operated for more than 30 years.
From the Sea to the Alps: the GNSS campaign in the DHHN 2006--2011

German 1st Order Leveling Network

Releveling 2006 - 2011
GNSS campaign 2x24h
May/June 2008
Absolut Gravity 2009 - 2011

Stand September 2008
- GNSS-Station 250
- GNSS+Absolutschwere 100
- SAPOS-Station 250
- Station benachbarter Positionierungsdienste
- IGS/EPN/GREF-Station

Pflichtlinien
optionale Linien
restliche Linien des DHHN92
The German quasigeoid model GCG05 extended including the region of southern Baltic and North Sea by the aerogravimetric data.

The basic data for the quasigeoid modelling will further be improved in 2008 by aerogravimetric flights in the North Sea region and in southern Germany.

The results shall help to close existing data gaps.

Accuracy 1 to 5 cm.
Comparison of scientific coordinates of the EPN stations with the national official ETRF coordinates

Germany accepted ETRS89 as national reference frame. Original realization that has been adopted is based on measurements in 1991/1993. Later performed measurements showed a systematic discrepancy to the original realization, considered by applying an additional 7-Parameter Helmert transformation. A total number of 5 sites have been identified to be part of the EPN and the German national reference frame in common.

<table>
<thead>
<tr>
<th>Number</th>
<th>Site</th>
<th>North</th>
<th>East</th>
<th>Height</th>
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</table>

RMS / COMPONENT : 8.6  6.0  9.2
RMS OF TRANSFORMATION : 7.2 MM