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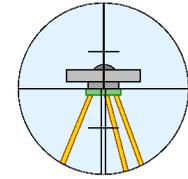
# NKG Working Group

# Positioning and Reference Frames

Report  
2006 - 2010

by

Lotti Jivall & Per Knudsen



# WG Background

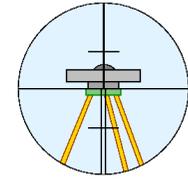
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## Objectives:

Study methods for positioning using satellite techniques,  
Develop methods for the monitoring of reference frames,  
Implement results for realisation of the reference frames for  
practical use,  
Exchange information.

## Focus 2006-2010:

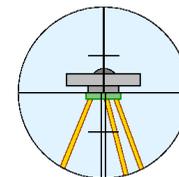
- ITRF2005 Nordic reference frame (+Baltic + Arctic)
- Antenna / site calibration
- EUREF LAC
- Galileo – Arctic Testbed



## Members/contributors:

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- Karsten Engsager
- Shfaqat Abbas Khan
- Finn Bo Madsen
- Per Knudsen (chairman)
- Mette Weber
- Hannu Koivula
- Pasi Häkli
- Markku Poutanen
- Þórarinn Sigurðsson
- Gunstein Dalane
- Torbjørn Nørbech
- Oddvar Bråvold Tangen,
- Olav Vestøl
- Lotti Jivall
- Martin Lidberg
- Dan Norin
- + Priit Pihlak
- + Janis Zvirgzds
- + Aivars Ratkevics
- + Madara Caunite
- + Inese Janpaule
- + ...



## Meetings:

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1. 15 - 16 January 2008, DTU, Space, Copenhagen, Denmark
2. 5 - 6 November 2008, Statens Kartverk, Hønefoss, Norway
3. 6 - 7 May 2009, Lantmäteriet, Gävle, Sweden
4. 21 – 22 October 2009, FGI, Masala, Finland
5. 15 - 16 June 2010, DTU Space, Copenhagen, Denmark

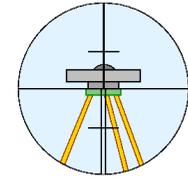
DTU Space  
National Space Institute

STATENS KARTVERK

LANTMÄTERIET



DTU Space  
National Space Institute

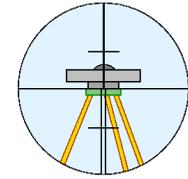


# ITRF2005 reference frame

The new ITRF2005 reference frame covering the Nordic region including Iceland and the Baltic states was established through:

- 2008 week 40 campaign
- Data Processing with more softwares/strategies
- Transformations to national ETRS89





## More info:

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**Tuesday September 28.**

**Session 2: Terrestrial reference frames (global and national):**

- **Processing of the NKG 2008 GPS campaign**  
Lotti Jivall
- **The NKG 2008 GPS campaign – transformation results**  
Martin Lidberg, Pasi Häkli, Karsten Engsager and Torbjørn Nørbech