# NORDISKA KOMMISSIONEN FÖR GEODESI



Chairman NIELS ANDERSEN DTU Space National Space Institute DK-2100 KØBENHAVN Danmark Secretary MIKAEL LILJE Lantmäteriet Geodesienheten SE-801 82 GÄVLE SVERIGE

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# Proposal for Project within the Nordic Commission of Geodesy

# Review of current and near-future levelling technology

**Project** Version April 17, 2012 Proposal accepted by the NKG presidium April 17, 2012

# Aim/motivation

The purpose of this study project is to make a literature and experience-based review that sums the current levelling methods and capacities in the Nordic countries, identifies promising areas for further study and development, and, if it finds reason for that, proposes a focused continuation project of concrete action in them.

The motivation for the project is first to secure that the knowledge of the current methods in precise levelling, on the practical level, is documented for the future. And secondly to secure that we have resources and possibilities to maintain the precise levelling networks in the Nordic area, considering that many of the key persons are about to retire (or already have retired). The results of the project will also be crucial as input to the development of the next generation of height systems.

To keep the scope manageable, GNSS/geoid height determination is kept out of the project.

# Outcome /Deliverable

The main deliverable of this project is

- A 20-30 pages review report in March 2013.

# Working Groups and Officers Involved

The project involves the NKG WG of Geoid and Height Systems.

Project leader: Olav Vestøl, Norway

Participants: Jaakko Mäkinen, Finland Casper Jepsen, Denmark Olav Vestøl, Norway Guðmundur Valsson, Iceland Per-Ola Eriksson, Sweden



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# Milestones, Completion Dates

Activity	Short Description	Responsible	Completed
1	Project preparation	Olav Vestøl	December 2011
2	Project work, including writing of the report	Olav Vestøl	March 2013

#### Comments:

- Due to the late start, the project is delayed 1 year compared to what was agreed on the WGGHS meeting in Gävle 2011.

### **Proposed Meeting Schedule**

- No meetings except for the yearly WGGHS meetings in March each year.
- WGGHS meeting in March 2013: Present the final review report.

### **Project Monitoring and Reporting**

- Status report at the WGGHS meeting in March 2012.
- Final review report finished and presented in March 2013. .

#### **Resources required**

Activity	Short Description	Estimation of resources	
1		Olav Vestøl: 1 day	
	Project preparation	Jaakko Mäkinen: 1 day	
		Jonas Ågren: 1 day	
2	Project work, including writing	Olav Vestøl: 3 weeks	
	of the report.	Each active project participant: 2 weeks	

#### Comments:

- The time needed to take part in yearly WG meetings or in more general e-mail discussions is not counted here.

### Sent in by

Suggested by the NKG WGGHS at the meeting in Gävle, May 30-31, 2011.