



Nordiska kommissionen för Geodesi Nordic Geodetic Commission

Working Group for Geodynamics

Minutes of the 34th meeting of the Working Group for Geodynamics within the Nordic Geodetic Commission

Finnish Geodetic Institute, Masala, March 11-12, 2010

Participants:

Denmark	Gabriel Strykowski	DTU Space
	Emil Nielsen	DTU Space
Finland	Jaakko Mäkinen	FGI
	Mirjam Bilker-Koivola	FGI
	Hannu Ruotsalainen	FGI
	Heikki Virtanen	FGI
	Arttu Raja-Halli	FGI
	Jyri Näränen	FGI
	Ulla Kallid	FGI
	Markku Poutanen	FGI
(Åland Island)	Martin Ekman	Summer Institute for Historical Geophysics
Norway	Dagny Lysaker	UMB
	Dag Solheim	Statens Kartverk
Sweden	Hans-Georg Scherneck	Chalmers
	Martin Lidberg	Lantmäteriet
	Per-Anders Olsson	Lantmäteriet
	Jonas Ågren	Lantmäteriet
Estonia	Tõnis Oja	Estonian Land Board
	Andres Rüdja	Planser AS
	Harli Jürgenson	EMÜ, Estonian University of Life Science
Latvia	Janis Kaminskis	Latvian Geospacial Information Agency
Lithuania	Eimuntas Paršeliunas	Vilnius Gediminas Technical University
Germany	Olga Gitlein	IfE, Leibniz Universität Hannover
	Ludger Timmen	IfE, Leibniz Universität Hannover
	Reinhard Falk	BKG, Frankfurt.

1. Opening

Chairman Martin Lidberg opened the meeting and Per-Anders Olsson (with help from Hans-Georg Scherneck) was appointed as the secretary.

2. Institute reports

No summary is given of the individual institute reports. Most of them will be available at the home page of the meeting;

<http://www.oso.chalmers.se/~hgs/NKGWG/index.html>).

DK: Danish National Space Center (Gabriel Strykowski)

FI: Finnish Geodetic Institute, FGI (Hannu Ruotsalainen)

NO: University of Life Sciences, UMB (Dagny Lysaker)

SE 1: Lantmäteriet – The Swedish mapping, cadastral and land registration authority (Per-Anders Olsson)

SE 2: Chalmers, Onsala Space Observatory (Hans-Georg Scherneck) not presented

EE: Estonian Land Board, (Tõnis Oja)

LV: Latvian Geospatial Information Agency (Janis Kaminskis)

LT: Vilnius Gediminas Technical University (Eimuntas Paršeliunas)

DE : BKG (Reinhard Falk)

3. Presentations on results from AG observations

Olga Gitlein: *Comparison of trends from 5 and 15 years of AG measurements*

<http://www.oso.chalmers.se/~hgs/NKGWG/index.html>).

Jaakko Mäkinen: *Repeated absolute gravity measurements in the Fennoscandian Postglacial Rebound area: comparison of gravity change with observed vertical motion and with GIA models. It is agreed that Jaakko should proceed with the work to compile a manuscript and submit to Physics and chemistry of the earth, (special issue from the DynaQlim meeting in Espoo June 2009). For this paper, there are one co-author from each observing group.*

(The chairman has after the meeting checked with absent members of the w.g. that this is an acceptable decision.)

4. Business matters

4.1 Proposal for structure on NKG and the working group for Geodynamics for the next 4 years period.

Martin showed some previously accepted documents concerning the “Vision for NKG”, “Objectives” and “Activities” for the working group for Geodynamics.

The meeting recognized that the work over the last four years has been carried out very much in agreement with these formulations and the proposal from the meeting is that the working group should continue in the same form for the next four years period.

Martin announced that he will not candidate for chairman of the group for the next period. The working group shall present one or a few candidates for chair for the

NKG General Assembly in September. The following names were suggested by the meeting:

- *Jaakko Mäkinen* (Jaakko did not want to be a candidate)
- *Miriam Bilker-Koivula* (Miriam did not want to be a candidate)
- *Gabriel Strykowski* (Gabriel accepted to be a candidate if no one else was found)
- *Björn Ragnvald Petersen* (Björn Ragnvald was not at the meeting, but was afterwards asked by Martin with the result that Björn prefer to pass the chairmanship to someone else)
- *Jonas Ågren* (accepted being a candidate)

4.2 Discussion regarding sharing data from AG observations.

Martin had written a draft on “Agreement on exchange of data from absolute gravity observations” and an extensive discussion was held on that. It was a general opinion that the draft was too formal and strict and should be formulated more as a “memorandum of understanding”. Some other topics discussed during this session were:

- Which parties except the measuring institutions in the Nordic countries should be comprehended by this agreement, and how should this be formulated?
- A definition (geographical) on which data to be comprehended by this agreement should be included. Greenland? Iceland? Baltic countries (yes if they agree to share data). Germany? Fennoscandian land uplift area?
- Storage of raw data should be done as ASCII-files (and binary files) that can be produced (and reprocessed) by the “g”-software.

The meeting did not succeed to come to a final solution on the formulations and agreed that this draft should be finalised by more work and correspondence and acceptance by e-mail, initiated and led by Martin.

4.3 Draft for an updated AG-plan.

Per-Anders had made a draft of an updated version of the AG-plan from 2003. It had been distributed to the participants of the meeting in beforehand. This plan should be finalised and accepted via e-mail. Greenland and Iceland should be included.

5. Scientific presentations

No summary is given of each individual presentation. Most of them will be available at the website; (<http://www.oso.chalmers.se/~hgs/NKGWG/index.html>).

Jaakko Mäkinen: *The Cost Action ES 0701*

Jaakko Mäkinen: *Repeated relative gravity measurements on the Fennoscandian Land Uplift Gravity Lines 1966-2003: comparison of gravity change with observed vertical motion and GIA models. Manuscript status.*

Jaakko Mäkinen: *Remeasurement of the Finnish First Order Gravity Network with the A10-020 of the IGIK (Warsaw) was started in 2009. The time span is 47 years. Is there a capability for detecting PGR?*

Emil Nielsen: *A10 measurements in Greenland and Denmark.*

Martin Ekman & Per-Anders Olsson: *Crustal loading and gravity change during the greatest storm flood in the Baltic Sea.*

Heikki Virtanen: *Comparison between a superconducting gravimeter (GWR-T020) and an absolute gravimeter (FG5-221) at Metsähovi.*

Ludger Timmen: *First experience with registering spring gravimeters.*

Hans-Georg Scherneck: *The superconducting gravimeter at Onsala.*

Tõnis Oja: *Evaluation of vertical gravity gradient in Estonia.*

Tõnis Oja: *Software package GRAVS2 for the relative gravity data processing.*

6. Next Meeting

The NKG general assembly will be held in Norway September 27-30. Therefore, no date or place for the next meeting was decided.

7. Closing

The WGG thank their host, the Finnish Geodetic Institute, for excellent organisation, service and treatment food-wise.