

Geodynamics WG report

Matthew Simpson, NKG GA, Gothenburg 2014

(standing in for Dagny Lysaker)

Geodynamic meetings

2011 – Norway (Denmark, Finland, Germany, Norway, Sweden)

2012 – Denmark (Denmark, Estonia, Finland, Lithuania, Norway, Sweden)

2013 – Iceland (Denmark, Estonia, Finland, Norway, Sweden)

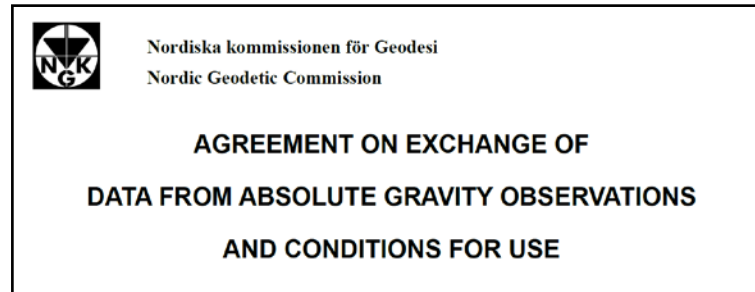
2014 – Sweden (Denmark, Estonia, Finland, Latvia, Lithuania, Norway, Sweden)

19 scientific presentations

26 National/Institutional reports

Meetings have been combined with the Geoid and Height Systems working group

The AG project



The basic purposes of this agreement are:

1. To ensure that the observations are preserved for future use and not get lost or being destroyed due to technical or administrative circumstances
2. To ensure that the complete set of observations is made available for scientific work among the parties, which are considered advantageous for society.

The AG project

Parties:

Kort og Matrikelstyrelsen in Denmark

National Space Institute of the Technical University of Denmark

Kartverket, Norway

University of Life Science in Ås, Norway

Lantmateriet, Sweden

Onsala Space Observatory at the Chalmers University of Technology

This agreement may be extended to include other Institutions both outside and inside the Nordic Area, active in AG observations in the Fennoscandian area.

Not a legal document, but an agreement of cooperation

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Responsibilities:

Each Party is responsible to the other Parties for the quality and availability of the data.

The exchange of data is supposed to be done within **one year** after observation.

The Parties agree to not forward or otherwise make shared data available to third part, unless agreed between the Parties. However, each Party have full right to observations collected by themselves, and may use them in any cooperation or make them public available.

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Timeline:

2012 Denmark – Agreement signed by all Parties ☺

Data archive, Lantmäteriet server – Andreas Engfeldt
Mirror data archive, FGI server

2014 Sweden – All Parties have delivered data up until end of 2013

We will continue to use working group meetings to coordinate field campaigns

The AG project

Future plans:

There has been an ongoing discussion about a joint AG publication lead by Jaakko.

In March 2014 it was decided that we will not continue with this publication. Instead, each observing group needs to work on publications based on their own instrument, and have this done within approximately one year.

A joint AG paper will be a core focus of the Geodynamics WG in the next period

1. Accepted by end of 2015 2. Coordinated with new BIFROST velocity solution and a modelling paper

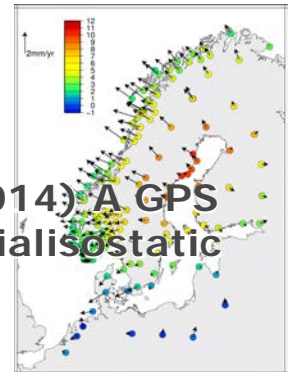
NKG201xGIA

A model of glacial isostatic adjustment for Fennoscandia

An activity established WG meeting Iceland 2013

Lead by Holger Steffen – presentation Wednesday 13:45

Kierulf, H. P., Steffen H, Simpson MJR, Lidberg J, WU P, Wang H (2014). A GPS velocity field for Fennoscandia and a consistent comparison to glacial isostatic adjustment models. *J. Geophys. Res. Solid Earth*, 119, doi:10.1002/2013JB010889



Continuation of BIFROST but with more stations and longer time series.

Tune GIA model with levelling/tide gauge/GPS combination provided by Olav Vestøl and Jonas Ågren - will form underlying GIA model of new empirical land uplift model

Conclusions

1. **AG work will continue with field campaigns coordinated and data delivered to the archive.**

Each observing group needs to soon publish their own data

Focus on a joint publication towards end of 2015

2. **NKG201xGIA will continue as an activity**

Tune GIA model with levelling/tide gauge/GPS combination provided by Olav Vestøl and Jonas Ågren

Holger Steffen – presentation Wednesday 13:45