



NORDISKA KOMMISSIONEN FÖR GEODESI

Chairman
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Minutes

77th NKG Presidium meeting

Time: 3-4 March noon-to-noon

Place: Conference hall in Kipsala, 11th floor (close to the Olimpia shopping mall)
Āzenes iela 6, Kurzeme District, Rīga, Lettland

Item 1. Opening of the meeting

The chair opens the meeting, thanks the local organizer, and welcomes everyone.

Item 2. Approval of the agenda

The agenda is approved with the following amendments:

- Visit to the LASER station will depart at about 15:00
- We should reserve 2 hours for the group work and discussions on the future of NKG.
- TBD on when we start tomorrow.

Following the e-mail from the chair Markku Poutanen on 2019-12-18 and the replies, Martin Lidberg is appointed secretary of the NKG.

Item 3. Approval of the minutes from the NKG Presidium meeting 76 (October 2019)

The minutes are approved with a few corrections.

Item 4. Action items from meeting 76

- a) **Lantmäteriet** is asked to give a short summary of the Fall Workshop with the Geodata department during the **next Presidium Meeting** as part of the National Report.

On the agenda, – will be reported at the WG pos report.

- b) **Anna J** and the WG is asked to finalize the white paper by **1 December 2019**. **Presidium members** are asked to forward it to decision makers/members of the transportation ministries and ask how these things are proceeding in each country. If no contact exists yet, each country is asked to try establishing such

contact. Each country shall report on the progress during the **next Presidium Meeting**.

Short round on the status: Denmark: planned and in progress; Estonia: identified where to send it; Finland: it has been sent to some ministries, know where to send it but somewhat unclear if it is sent; Iceland: not connected yet; Latvia: know where to send it, but it should be approved from NKG first (common practice is that the final version should have been approved and then it can be sent to the ministry); Lithuania: somewhat unclear; Norway: somewhat unclear; Sweden: the papers has been handed over to “Geodatarådet”. The continuation of this matter is discussed. An official approval could/should be done! It is now the final paper and it is approved by the NKG. An official front-page including the NKG logo should be added.

AI 1: make the paper official with a new front-page.

- c) By-laws: The **Baltic countries** decide on their representative in the group and forward the name to Markku.

Done. Markku, Per-Erik, Sören, Niels, Martin, Ivars, Holger.

- d) By-laws: **Markku** will call for a meeting when all participants are determined. There will be a starting point of this during the group work session tomorrow.
- e) Copyright and Licensing: **Holger** is asked to forward missing metadata and licensing information to those individuals that requested this information (*Note from after the meeting: Done*) and to work on adding this information for NKG2016LU and NKG2016LU_gdot until the **next Presidium Meeting**.

Short note on some issues with CC-BY from Martin; Since CC-BY implies that the product can be used freely, as long as the organization that created the product is acknowledged, it may be complicated if CC-BY is used for deformation models when used in e.g. coordinate transformation packages.

AI 2: for Holger to prepare a short comparison on CC-BY and other alternatives and suggestions on how to handle this.

- f) **Markku** is asked to discuss with the new GGOS chair (Basara Miyahara) the expectations and benefits of NKG being a GGOS affiliate member and present those during the **next Presidium Meeting**.

Since the GGOS president is new on the position, Markku suggest postponing the topic for some time.

- g) The web page host (**Iceland**) is asked to resend the login and instructions to the (new) WG chairs as well as to update the software. **WG chairs** are asked to update their websites then accordingly until the **next Presidium Meeting**

Done: The login etc have been sent out and it works. Some WGs have updated their pages.

- h) The **Scientific Committee** (of the Science week in Iceland) is asked to provide a theme and tentative schedule to the Local Organizers (*Note from after the meeting: tentative theme is “Geodesy – from science to society” and planned from Monday, 9 March noon, to Wednesday, 11 March, late afternoon*).

- i) **Norway** is asked to present the plan for the Summer School at the **next Presidium Meeting**.

Done: will be in the National report for Norway

Item 5. Report from the Coordinating Board

Ove gives a short report on the coordinating board and the DRF-activity on behalf of Per-Erik. The DRF activity or group is like an “expert group” with the primary objective to coordinate the work, and where most of the work is now done in the working groups.

Ola Øvstedal: Always when we make changes on reference frames it also affects legislation and practical surveying procedures for the users. There are very important issues to handle and to take care of. These need to be addressed!

Pasi: The red parts in the Gantt-chart (see minutes of NKG Presidium meeting no 76) are more outreach and exchange with users and the wider society. We do have good control of the geodetic parts, but the other parts need to be handled somehow!

Item 6. Report from the Working Groups

- a) Reference Frames

Pasi gives an update from the w.g. NKG GNSS AC is on-going, NKG2017 horizontal deformation model is finalized, NKG transformations are almost completed and to be accepted at the w.g. meeting next week. The group is aiming for a peer review paper. The transformations will be implemented in PROJ.

- b) Future Height Systems and Geoid

Ove is the new chairman w.g. Future Height Systems and Geoid and gives a short report on current work and plans.

- c) Geodynamics and Earth Observations

Holger gives the report. The collaboration with the InSAR community will be on the program for next week Science week on Iceland. A common Nordic absolute gravity (AG) comparison campaign will be scheduled for 2021. The collection and compilation of the relative gravity observations from the land uplift gravity lines are in progress. Jaakko Mäkinen and Andreas Engfeldt are so far working on this, and a final analysis will follow.

The idea of computing a BIFROST 2020 GNSS solution and an NKG202xLU model are presented.

The presidium approves the idea and encourages the working group to continue the preparations and discuss with the NKG GNSS AC activity where much experience on the Nordic/Baltic station are available.

- d) Future positioning services and applications

Dan reports from the w.g. on behalf of the chairperson Anna Jensen. The White paper (discussed above) is completed. Next step is a Framework for the

socio-economic analysis of the benefits of the developments foreseen in the White paper.

Hannu: any suggestions and/or conclusions on the socio-economic analysis? Some analysis is performed at national level in Norway and in Denmark. Michael mentions that there are some few major studies done globally.

Item 7. National Reports

Some short notes from the national reports are given below.

DENMARK

A new agreement between SDFE and DTU has been developed. It is now more project based. The strategic development is now handled in the Steering committee.

The background to the TAPAS testbed in Aarhus is the evaluation of the Galileo High Accuracy Service (HAS).

Anna Jensen is back at DTU Space. – slowly increase at DTU.

Kristian Pedersen will leave DTU Space. Hopefully a replacement will be in place later this year.

FINLAND

Information on change in Finnish group: Hannu will replace Jarkko in the Presidium. All management jobs at NLS are open. FGI will move to Aalto university campus by December 2021 according to current plan.

A strategy document for Geodesy until 2026 is available for 2 years. There is now work on a Roadmap.

ICELAND

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NORWAY

The number of C-pos users decreased from 5000 to 4000 due to cooperation with other service providers.

At the Geodesy division at Kartverket, 7 persons left during the last year, and only 1/3 will be/are allowed to be replaced.

At NMBU (Norges Miljø- og biovitenskapelige universitet) Vegard Ophaug is new associated professor.

SWEDEN

Some changes in the staff at the department for Geodetic infrastructure. Mikael Lilje is now manager for the new International department at Lantmäteriet. Martin is the new head of department of Geodetic infrastructure, and Per-Anders Olsson the new head of the Reference frame section. Gunnar Hedling has retired, and Martin Håkansson defended his PhD at KTH on February 28.

A new the task is the restoration of the boundary and its markers between Norway and Sweden during 2020-2024.

ESTONIA

Andres Rudja is back at the Estonian Land Board.

Estonia participates in the Geodetic SAR project, where also Finland, Sweden, Poland and Germany participate. The intention with the project is evaluation of data from the Sentinel-1 radar satellites for absolute vertical positioning and how this could be utilized for height system unification with the Baltic Sea as a target. The project is technology driven. Testing and use of so-called Electronic Corner Reflectors (ECR) or transponders is an important part of the project.

A 5 mm Estonian geoid model has been developed, partly as an offspring of the FAMOS project and the work with the NKG2015 geoid model. A paper is published in Survey Review.

LATVIA

An activity on inventory of benchmarks has been established as a part of the maintenance of the national height network.

Data from LatPOS are available for free, but a user account is needed.

Work has started on renewal of the geodetic reference frame, including improved design of monument construction for important GNSS stations.

5 transponders from the company Metasensing (the same kind of ECRs that are used in the Geodetic SAR project) have been ordered.

Latvia is now member of the IUGG (thanks to Latvia Academy of Science).

LITHUANIA

Lithuania is now delivering hourly GNSS data to Eumetnet that will be processed by the university of Wroclaw for the E-GVAP GNSS water vapour programme.

Item 8. Science Week 2020 in Iceland

The preparation for the next week Science week in Iceland seems to be fine. The theme for the workshop is Geodesy – from Science to Society.

The message from the Presidium and expectations from the working groups are shortly discussed. Markku will have a short presentation in the opening session of the workshop, and from this discussion bring the message on challenges in Geodesy, the NKG structure and strategy, and the NKG focus areas.

Item 9. NKG Summer School 2020 In Norway

Ove gives a presentation on the progress of the preparations. The NKG Summer School is scheduled from Monday August 31 to Thursday September 3, and the theme will be Space Geodesy in Support of the Future Autonomous Society.

The venue will be Hotel Klækken close to Hønefoss, and about one hour from the Gardemoen airport.

The two options for price of the school are discussed. The first option with a cost of about 800 NOK per night, and a relatively high conference fee is preferred.

Item 10. Copyright and licensing of NKG Products

Holger reports on the progress regarding copyright and license of NKG products. The discussions from Item 4e are also recalled.

Pasi would like to put the NKG products on the NKG website as soon as the licensing is resolved.

Item 11. Report on the meeting of the Nordic heads of Geodesy in Copenhagen 9 December 2019

All five countries were represented, and it was a fruitful meeting with interesting information and discussions the challenges we see at the different national levels as well discussion on common challenges.

Item 12. UN-GGIM Centre of Excellence

Ove gives a short report on behalf of Per-Erik and Laila Løvhøiden.

At the Ninth Session of the United Nations Committee of Experts (CoE) on Global Geospatial Information Management (UN-GGIM) in August 2019, The UN-GGIM Subcommittee on Geodesy (SCoG) tabled the revised position paper proposing the establishment of a Global Geodetic Centre of Excellence (GGCE) under the auspices of the UN to actively contribute to realising the ambitions of the UN General Assembly resolution “A Global Geodetic Reference Frame for Sustainable Development” (A/RES/69/266), with the aim of ensuring the development, sustainability and advancement of the GGRF, as well as its densification and access by all Member States.

Item 13. Report from EUREF and IAG

Within EUREF there is a work going on to develop a EUREF strategy. This seems to be more difficult than initially expected, and maybe a feasible approach would be to take a step back and re-consider the basic scientific challenges in geodesy, and then proceed from that.

The EUREF symposia 2020 is scheduled for May 27-29 in Ljubljana, but at the recent EUREF Governing Board meeting it was discussed what to do if the covid-19 virus would be present in Europe also in May.

Markku, as secretary of the IAG, is currently collecting information and documents for the preparation of the “geodesists handbook”. The IAG scientific meeting 2021 is still planned for Beijing.

Item 14. NKG web page

The working group chairs and secretary have got their user account and have the possibility to update and add their respective information. There are still some issues on

where to place some NKG material, especially products and documents that relate to more than one working group.

Item 15. Other Business

The possibilities and the need for seeking external funding for NKG projects, e.g. from EU Horizon 2020, Nordforsk, or other funding organizations is slightly discussed. This is just a first discussion so we all can bear this in mind and be prepared when we stumble over some possibilities or face a clear need for such funding. This may be of importance specifically for the possibility to include contribution from Universities/Academia in our work.

Item 16. Next meeting of the Presidium

The last meetings include Latvia, Iceland, Sweden, Finland, Norway, Denmark.

Next meeting is suggested for Norway in connection to the summer school.

Item 17. Discussion on the future of NKG and group work

The purpose of this item is to investigate challenges in geodesy, the future we may foresee regarding positioning, geodata, possibly infrastructure for autonomy etc., and its possible effect on the future of NKG and implications for the revision of the NKG By-laws.

Markku gives a presentation on the history of NKG and stresses some of its success stories, recalls our current structure including resolutions, working groups and focus areas, and some aspects on the future including some important challenges.

With that as a background and inspiration we work groupwise with a SWOT-analysis (strengths, weaknesses, opportunities, and threats) of the NKG.

AI 3: Markku will compile the results from the groups and present at the next presidium meeting.

Item 18. Closing

The chair thanks our hosts in Riga for excellent arrangements for the meeting, thanks everyone for their contributions, wishes everyone a safe trip home, and closes the meeting.

Participants

PRESIDIUM

Markku Poutanen (chair)

Martin Lidberg (secretary)

Niels Andersen (excused)

Søren Fauerholm Christensen (excused)

Guðmundur Valsson (excused)
Pasi Häkli
Anna B.O. Jensen (excused)
Holger Steffen
Jan Johansson
Hannu Koivula
Ove Omang
Per Erik Opseth (excused)
Ola Øvstedal
Þórarinn Sigurðsson (excused – possibly through “Skype”)

GUESTS

Artu Ellmann, Estonia
Janis Kaminskis, Latvia
Ivars Liepins, Latvia
Vytautas Parseliunas, Lithuania
Simonas Valotka, Lithuania
Eimuntas Parseliunas, Lithuania
Dan Norin (“proxy” for Anna Jensen)
Michael Schultz Rasmussen (on behalf of Niels Andersen)