



NORDISKA KOMMISSIONEN FÖR GEODESI

Ordförande
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NORGE

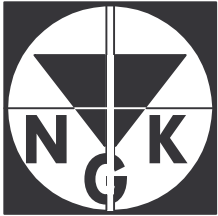
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The NKG Steering Committee on the on-going sub projects for "NORDIC POSITIONING SERVICE"

Minutes of the 23rd meeting Hønefoss, May 16, 2006

PRESENT

Denmark:	Casper Jepsen Lolita Bahl
Finland:	No representative
Norway:	Bjørn Engen (chair) Rune Hanssen Per Erik Opseth
Sweden:	Bo Jonsson Andreas Engfeldt (secretary)



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ITEM 1: OPENING OF THE MEETING

Bjørn Engen welcomed everybody to the 23rd meeting of the NKG Steering Committee on the on-going sub projects for “Nordic Positioning Service”.

The Steering Committee agreed to the following agenda for the meeting

1. Opening (Bjørn)
2. Minutes from the 22nd Steering Committee meeting on 24-25 January in Gävle and review of action lists from that meeting (see below) (Andreas / All)
3. Ongoing activities
 - Nordnet – the computer network (Rune, Casper, Bo)
 - Prices for the lines between the control centres (Rune, Casper, Bo)
 - Website (Rune, Bo, Casper)
 - NorDPOS (Bo, Rune, Casper)
 - NordRTK (Per Erik, Casper, Andreas)
 - The national GPS-services in each country (Bo, Rune, Casper)
 - The classification of the reference stations (Andreas)
4. Preparation for NKG General Assembly (Andreas, Bjørn)
5. Future activities (All)
6. Road pricing (Lolita, Casper)
7. The Automated Computation Service (Bo)
8. Geo++ and Spidernet – tests (Per Erik, Casper)
9. Preparation for the next Presidium Meeting (All)
10. Preparation for the next Directors General Meeting (All)
11. DARC/Global Star (Bo)
12. EGNOS (Rune)
13. Other items
14. Summary of action list (Andreas)
15. Next meeting and closing (All)

ITEM 2: MINUTES FROM PREVIOUS MEETING

Minutes from the 22nd Steering Committee meeting on January 24-25 was approved.



REVIEW OF THE ACTION LIST FROM THE MEETING OF THE STEERING COMMITTEE ON JANUARY 24-25

The agreed action list from the meeting in Gävle on January 24-25, 2006 was reviewed:

	Action	Status 2006-05-16
1	The computer solution and the prices of lines:	
	A The Tele Danmark prices we got from Bo H seem to be somehow wrong. Casper checks out what the correct prices are.	Not done.
	B Rune checks the prices from Telenor.	Not done.
	C From Telenor we got a service description, but from Tele Danmark we got no such. Casper tries to get one from them.	Not done.
	D Limitations of the proposed Internet solution shall be highlighted. Casper and Rune are responsible.	Not done.
	E The price proposals/offers of the lines should be exchanged if possible within a week.	We will wait until this meeting. But before we can do it A, B and C need to be finished.
	F This ITEM will be the main theme of the next telephone meeting.	It was not, because A-E was not finished.
2	Web site:	
	A The logo from Lantmäteriet is missing in the document about the Web site. Andreas finds it and sends it to Rune.	Done.
	B There will be a meeting within the Web Portal group. A proposed date and place is February 16-17 in København. But before the meeting Rune needs feedback on the document about the Web Portal.	The meeting took place, but became a one day meeting. Rune got the feedback he asked for.
	C KMS investigate possible resources for the development of the code for the Web site.	It could be possible, but first after this meeting.
3	NorDPOS: KMS contact the DAB distributor today and a meeting with the distributor, Casper and Rune will be planned quite soon.	A meeting was held in Linköping with the company "Factum Elektronik" who has given KMS



			an offer, even if the price is not fixed yet.
4		Classification of reference stations:	
	A	The working group has got proposal of a few things to add in the classification document which was sent on review. These things will be considered and Andreas will put together one document of all the things the working group wrote on their meeting in October.	Done.
	B	This document will then be sent on review to the other members of the working group and to Finland (Markku Poutanen).	It is back and corrected after the review, but some uncertainties about the ESEAS stations were discovered and these need to be solved before the document is completely finished and sent to Finland.
	C	When the document has been approved by the Steering Committee on the next meeting in May it will be published on the NKG homepage.	We are not there in time yet.
5		Geo++ test: It was delayed and will be performed quite soon in the Hønefoss area.	Done. Geo++ and GPSNet were compared and no significant difference was seen with regard to the position. More about this will be handled on the next meeting.
6		Spidernet test:	
	A	Early this summer the Danish Spidernet will be running. KMS will then make test measurements to find out how good it is.	We are not there in time yet.
	B	Casper will organise a Spidernet upstart meeting in the spring or in the early summer. Per Erik and Lantmäteriet (probably Andreas or Daniel Johansson) are also interested in attending.	We are not there in time yet.
7		RTCM: There will be a meeting in the RTCM committee next week, which Gunnar H will attend. Gunnar will then	Gunnar gave a detailed report on



		report about what happened at the next telephone meeting.	the telephone meeting 060308
8		NKG General Assembly, May 29 – June 2 in København:	
	A	Andreas makes a presentation about Nordic Positioning Service. All the others in the Steering Committee shall help and support him about material.	We are not there in time yet.
	B	Denmark are responsible for changing the maps over the permanent reference stations. But before they can do anything, Norway and Sweden must send the coordinates of the new reference stations.	Done.
9		Road pricing: In København there is a new Mayor who wants to have taxes for cars when they drive in the city. There could be a possible way to solve it with GPS. Lolita searches for what has been performed earlier with GPS for such purposes.	We will speak about this on the next meeting.
10		Agreements: Rune sends out the new agreements between Statens Kartverk and the CPOS users.	Done.
11		The automated computation service: This will be a subject of its own at the next agenda.	It is.
12		Other items: Maybe we shall discuss or brainstorm about new possible applications for our GPS services at the next meeting?	We decided to postpone this.
13		Next telephone meeting: Wednesday March 8, at 14.15.	Done.
14		Next meeting: Tuesday May 16 in Norway, at 08.30-17.00.	

ACTION LIST FROM THIS MEETING

	Action	Responsible
1	Factum will be contacted because we want to go on with Network DGPS in Denmark with DAB as distribution channel.	Casper
2	There will be a meeting in Copenhagen between Casper, Rune and Anders. Frands will attend after a while when the Web site is the subject.	Casper
3	The Topcon-converter shall be installed in Sweden. Per Erik, Rune, Örjan and Anders will take part. This will be performed in June.	Per Erik
4	NordRTK-meeting in Gardermoen on the 21th of June.	Per Erik
5	Casper checks about the term of notice for the computer lines between the Nordic control centres	Casper



6	Rune sends the Telenor offer to everybody in the Steering Committee	Rune
7	There will be a telephone meeting about this on the 9th of June. Andreas will not participate.	Rune will order it
8	Next meeting will be the 7-8 of September, lunch-lunch, in Copenhagen	All

ITEM 3: ONGOING ACTIVITIES

Nordnet

The VPN line.

We have got offers from Tele Danmark and Telenor. We decided to study the different proposals and make a decision at the next telephone meeting.

Nordic Web Portal

There was a meeting in København which included Rune, Casper and Anders Frisk. The specification document of a Nordic Web Portal was then almost finished. Frands Steffensen will soon be back at work and then another meeting will take place in København between Rune, Casper, Anders and Frands. Casper is responsible for booking the meeting.

NorDPOS

Casper and Rune had a meeting with the Swedish company Factum, who is able to provide a system for distribution of DAB over Denmark. Casper will contact Factum and tell them that we will go on with tests, trying to transmit Network DGPS data over DAB in Denmark.

NordRTK

The next NordRTK meeting will be held on June 21, in Gardermoen.

The national GPS services in each country

Sweden

Since the 1st of April two new services have been introduced in Sweden, a combined GPS/GLONASS Network RTK service and a Network DGPS service. These services can both be used by GSM or GPRS.

In Stockholm a new reference station has been established for time services, which probably will be a part of IGS's time service.



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Around Road 45 between Göteborg and Trollhättan a new road construction project will start. In that area three new reference stations has been established.

The GSM coverage has proved to be good also in the new Network RTK project "Position Mitt", close to the Norwegian border.

On May 1 the new one-year establishment Network RTK project "Gute-RTK" started on Gotland. On July 1 the new one-year establishment Network RTK project "Nord-RTK" will start in Västerbotten and Norrbotten.

The EPOS service (DGPS) will close down on the 1st of January 2007 if no new operator has been found before that date.

Norway

Since last meeting some of the CPOS stations in Østfold have been moved and one of them has been removed.

This year there will be new stations in coastal Trøndelag. In Sogn & Fjordane one station will be moved and two new stations will be established.

Leica are interested in running a service in Rogaland. At a start that should only be a single station RTK service.

Denmark

Spidernet. When the network is up and running, which probably will be in the autumn, there will be an upstart meeting, which Casper will be responsible for. Per Erik and Andreas are still interested in participating in that meeting.

Classification of reference stations

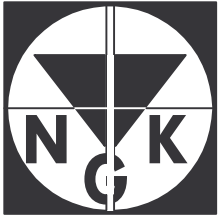
The classification sub group has now received answer from Marko Poutanen that the document looks good. The document will be distributed to the Steering Committee for approval at next meeting.

ITEM 4: PREPARATION FOR NKG GENERAL ASSEMBLY

We went through what is important to present about this project at the NKG General Assembly. Most of those things were already included in the presentation. The maps of all the Nordic governmental permanent reference stations was not finished yet, but Casper will send it latest on May 19. Andreas will also send the presentation on May 19 for review to the members of the Steering Committee. He needs to get response on May 24 to finish it before the NKG General Assembly.

ITEM 5: FUTURE ACTIVITIES

The agenda item is postponed to the next meeting of the Steering Committee.



ITEM 6: ROAD PRICING

The town Copenhagen is investigating the possibility to introduce road pricing. There is however a directive on the European level, called EURO Vignette, which should force heavy vehicles to pay a km tax. A Swiss company will evaluate it. There are two scenarios. The first one is that road pricing is implemented only on the big roads. The second scenario is that it will be implemented on all roads. The solution could be via GPS or time. The directive prefers the GPS solution. If GPS will be used this could be something for us, for example could a Nordic DGPS solution on DAB be an alternative.

ITEM 7: THE AUTOMATED COMPUTATION SERVICE

Nothing more has happened with this since the last meeting, Lantmäteriet is still in progress of developing an upgrade of the automated computation service based on the latest version of the Bernese software.

In Sweden a special version of the automated computation service for road construction is also under development. A difference to the "ordinary" version is that here 15 minutes should be enough to get coordinates on the cm level. Hopefully the upgrade will be finished right after the summer.

ITEM 8: GEO++ AND SPIDERNET

Geo++:

Tests comparing Geo++ to GPSNet were performed by Per Erik. The result was that there was no obvious difference in accuracy. Geo++ was though harder to handle.

Spidernet:

The implementation in Denmark of Spidernet is delayed, the tests will probably be performed in the autumn.

ITEM 9: PREPARATION FOR NEXT PRESIDIUM MEETING

There is no need for any prepared contribution for the next meeting of the Presidium, which is directly after NKG General Assembly.



ITEM 10: PREPARATION FOR THE NEXT DIRECTORS GENERAL MEETING

The next Directors General meeting will take place in København at the same time as the NKG General Assembly. For that meeting we will not prepare anything. The same applies for the meeting of the directors General in Finland on , August 21-23, 2006

ITEM 11: DARC/GLOBALSTAR

LM will perform some tests in the summer with GlobalStar as distribution channel for Network-RTK-data. The radio equipment has now changed into a more cellular phone design.. It should work together with GNSS instruments from Topcon and Trimble. Nothing new concerning DARC.

ITEM 12: EGNOS

Now there are 35 ground stations in Europe for EGNOS.

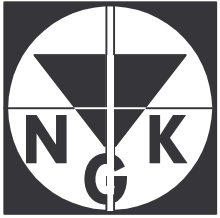
We spoke a bit about EGNOS ITT. Could it be possible to make a Nordic proposal? We decided to think about that for two weeks.

ITEM 13: OTHER ITEMS

No other items were up to the agenda.

ITEM 14: SUMMARY OF ACTION LIST

- Casper will contact Factum and tell them that we will go on with Network DGPS in Denmark with DAB as distribution channel.
- There will be a meeting in Copenhagen between Casper, Rune and Anders. Frands will attend after a while when the Web site is the subject.
- The Topcon-converter shall be installed in Sweden. Per Erik (responsible), Rune, Örjan and Anders will take part. This will be performed in June.
- NordRTK-meeting in Gardermoen on the 21th of June.
- Casper checks about the term of notice for the computer lines between the Nordic control centres.
- Rune sends the Telenor offer to everybody in the Steering Committee. There will be a telephone meeting about this on the 9th of June. Rune is responsible to order it. Andreas will not participate.
- Next meeting will be the 7-8 of September, lunch-lunch, in Copenhagen.



ITEM 15: NEXT MEETINGS AND CLOSING

The time of the next telephone meeting of the Steering Committee will take place on Friday June 9, at 09.00. Andreas will be busy in Luleå at that time so he won't attend. Rune is responsible for arranging the telephone meeting.

The next "real" meeting will take place in København on September 7-8, 2006.

Bjørn thanked all the participants for their contribution to a fruitful meeting.