

**Minutes:****NKG Working Group for GNSS positioning****Time and Place:** Wednesday 12. April 2023, at 13:00 UTC-1 – Thursday 13. April 2023, at 15.00 UTC-1, SDFI room 0.3.**Participants:** Casper Jepsen, Niels Henrik Olsen, Thomas Knudsen, Thorbjørn K. Nielsen, Malte N. Winther-Dahl, Thomas Nylen, Daniel Olesen, Peter Wiklund, Kibrom Abraha, Martin Håkonson, Kent Ohlson, Karin Kollo, Topi Rikkinen, Ola Øvstedal, Tor-Ole Dahlø, Kristin Skjerven, Andris Prizevoits, Aive Liibusk, Darius Popovas (online), Thorarinn Sigurdsson (online), Dalia Prizginiene (online)**Convener:** Casper Jepsen**Meeting rapporteurs:** Malte N. Winther-Dahl

Agenda	Item	Setting	Appendix	Minutes
1. Welcome	A. Welcome	Presentation by Thorbjørn Nielsen – head of geodetic office at SDFI		<ul style="list-style-type: none">Introducing who we are and what we do at SDFI.Perspective of the importance of geodesy to the “real” world – Climatecrisis, Positioning service
	B. Practical/ Technical details	Information from Casper Jepsen		<ul style="list-style-type: none">Casper gave a brief introduction to the new NKG WG and a small historical overview of the WG in the last decade. Also some ideas was framed here.
	C. Appointment of secretary for the meeting	Information from Casper Jepsen		<ul style="list-style-type: none">Malte N. Winther-Dahl pointed as secretary. For the future the hosting country will provide the secretary.
	D. Approval of agenda	Information from Casper Jepsen		<ul style="list-style-type: none">Agenda approved with minor changes to the timeframe.
2. Session 1: New working group – GNSS Positioning	A. New bylaws			<ul style="list-style-type: none">NKG-Bylaws adopted 8 September 2022.pdf (nordicgeodeticcommission.com)
	B. Input from NKG GA2022 and presidium			<ul style="list-style-type: none">Casper gave a brief presentation about some ideas also some of the ideas from the presidium.

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	C. Contact persons			<ul style="list-style-type: none"> The WG will at this point not appoint contact persons from each individual country. Everybody attending the meeting is encouraged to join the WG mailing list.
3. Session 2: National reports	A. Denmark	Casper Jepsen		•
	B. Estonia	Karin Kollo		•
	C. Finland	Topi Rikkinen		•
	D. Iceland	Thorarinn Sigurdsson (online), Dalia Prizginiene (online)		•
	E. Latvia	Andris Prizevoits		•
	F. Lithuania	Darius Popovas		•
	G. Norway	Tor-Ole Dahlø		•
	H. Sweden	Peter Wiklund		•
4. Session 3: GNSS related presentations	Swepos interference monitoring system	Kibrom Ebuy Abraha		•
	Interference of GNSS (from "store chefmøde")	Tor-Ole Dahlø		•
	Activities connected to GNSS mass market; Prepare Ships, NPAD, DINPAS and other ongoing development such as antenna heating and a new post processing service.	Kent Ohlsson & Martin Håkansson		•

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5. Session 4: Status and dataflow in the Nordic countries	Casper & Henrik: Dataflow of CORS in Denmark			<ul style="list-style-type: none"> • No further comments and remarks
	Andris: Dataflow of CORS in Latvia			<ul style="list-style-type: none"> •
	Thorarinn & Dalia: Dataflow of CORS in Iceland (online)			<ul style="list-style-type: none"> •
	Thomas: - Dataflow of CORS in Greenland			<ul style="list-style-type: none"> • 1500DDK Starlink at NORD
	Topi: Dataflow of CORS in Finland			<ul style="list-style-type: none"> •
	Darius: Dataflow of CORS in Lithuania (online)			<ul style="list-style-type: none"> •
	Tor-Ole: Dataflow of CORS in Norway			<ul style="list-style-type: none"> •
	Peter: Dataflow of CORS in Sweden			<ul style="list-style-type: none"> •
	Karin: Dataflow of CORS in Estonia			<ul style="list-style-type: none"> •
		Casper: Discussion and further cooperation on Session 4.		

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				<ul style="list-style-type: none"> - documentation - software tools <p>ending with a schematic summary</p> <p>Lead: Topi (Finland), Tor-Ole (Norway), Karin (Estonia), Casper (Denmark)</p>
<p>6. Session 5: NKG WG 2023 - 2026</p>	<p>A.</p>			<ul style="list-style-type: none"> • Sub working group on GNSMART (geo++ software) <ul style="list-style-type: none"> - lead Finland (Topi), Iceland (Dalia), Sweden (Martin), Norway (Tor-Ole), Denmark (Søren Skaarup) • RND platforms/projects <ul style="list-style-type: none"> Session on the next WG meeting (Presentations from Denmark, Sweden and Norway) • Mass marked <ul style="list-style-type: none"> Session on the next WG meeting • Topic to be discussed: Metadata documentation – M3G <ul style="list-style-type: none"> Karin Kollo will discuss coordinate issue with EPN/EUREF Government board. • Session/ topic: Interference (jamming and spoofing) <ul style="list-style-type: none"> Peter and Kibrom will discuss the possibility to include other countries into their interference monitoring system. Task force is active • Session: Monitoring <ul style="list-style-type: none"> Uptime, accuracy, TTF, ... • Topic: Ionospheric monitoring service <ul style="list-style-type: none"> Tor-Ole (Norway) will ask about the Norwegian “sesolstorm.no” service, and if it is possible for a larger collaboration.

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				<ul style="list-style-type: none"> • Session I 2024 (Iceland): SSR/ Galileo HAS How to go from ITRF20/GTRF20 to ETRS89 (maybe a joined session with WG Reference Frames) •
7. Status of the NKG website and WG mailing list	B.			<ul style="list-style-type: none"> • Please remember to sign up to the freelists (mailing list) • Next physical meeting will be in October/November 2023 in Norway. • NKG meeting week in week 11 2024 in Iceland.
8.	C.			<ul style="list-style-type: none"> •