

Proposals for resolutions at the 16<sup>th</sup> General Assembly of the NKG

*Res no 1: Standardization on GNSS signals*

#### **The Nordic Geodetic Commission**

**recognizing** the intense development in the GNSS satellite segment and the increased number of signals available to the user community

**noting** the need for standardization to make these signals usable for the users

**noting** the real time positioning services and its increasing importance for a wide range of sectors in modern society

**recommends** the members of NKG to be active in work towards international standardization regarding GNSS signals and its use

*Res no 2: Support for geodetic fundamental stations*

#### **The Nordic Geodetic Commission**

**recognizing** the importance of the geodetic fundamental stations for science, the global and regional reference frames, earth orientation, timing, and basis for the study of the system earth

**noting** that these products are vital for a wide range of applications in civil society, like satellite communication, navigation, satellite earth observations, and time transfer

**noting** the need for upgrading instrumentation at the stations within the NKG activity area, e.g. to comply to the up-coming requirements of the respective IAG services

**noting** the challenges to get funding for the needed renewals

**recommends** the National Authorities and geodetic institutions to continue the efforts to operate, maintain and modernize the stations Metsähovi, Ny-Ålesund, and Onsala.

*Res no 3: Models of crustal deformations*

#### **The Nordic Geodetic Commission**

**recognizing** the important role of intraplate deformations for reference frame definition and maintenance

**noting** the research ongoing at different Nordic institutions

**noting** the importance of glacial isostatic adjustment (GIA) to explain crustal deformations and as a tool for climate studies

**recommends** a close cooperation on exchange of methods, software and results for the goal of establishing a Nordic standard model for crustal deformations in the Fennoscandia and Baltic area

*Res no 4: Observing Sea level*

#### **The Nordic Geodetic Commission**

**recognizing** that the sea level is playing an increasing role in society

**noting** that climate change has created a need in society to follow the development in mean sea level increase very closely

**noting** the different estimations of the sea level rise for the coming decades

**noting** the great demand for this information among public authorities

**recommends** to initiate the development of methodology and standards to monitor and estimate the sea level change, using the combination of levelling, tide gauges and space techniques

*Res no 5: The importance of the gravity field and improved geoid model*

#### **The Nordic Geodetic Commission**

**recognizing** the importance of an accurate geoid model for society, science and for oceanographic studies

**noting** that the geoid as an equipotential surface is changing over time

**noting** the need from the GNSS user community of a precise geoid model for height determination in national height systems

**noting** the highly precise earth potential models becoming available from satellite gravity missions like Grace and GOCE

**noting** the need also for terrestrial gravity observations for geoid determination

**recommends** to investigate what needs to be in place (e.g. terrestrial gravity observations, terrain information, etc.) to meet the user needs of a geoid model at the 5 mm uncertainty level in the NKG activity area

*res no 6: implementing the new way of work*

#### **The Nordic Geodetic Commission**

**recognizing** the need for efficient use of resources

**noting** the benefit of increased project oriented activities within the Nordic cooperation

**noting** the need for reducing the carbon footprint of our activities

**noting** the availability of modern electronic conference facilities

**recommends** to strive for continuous improvements of our working procedures

*res no 7: Outreach*

#### **The Nordic Geodetic Commission**

**recognizing** that geodesy is an important part of a modern society and sciences about studies of the planet earth

**noting** that geodesy is unknown for the wider community

**noting** a general decrease in number of students in natural sciences

**noting** the need for qualified geodetic expertise in the future

**recommends** the geodetic community to improve its ability in outreach activities

*Res no 8: NKG GNSS analysis centre*

#### **The Nordic Geodetic Commission**

**recognizing** the large number of permanent stations for GNSS in the Nordic area,

**noting** the wide range of potential products beneficial for society that can be derived from these stations

**noting** the demand for near real time supervision of these stations

**noting** the interest for products from these stations in the international scientific community, e.g. EUREF, IAG dense velocity field, the COST action ES0701 "Improved constraints on models of glacial isostatic adjustment", and E-GVAP

**recommends** the presidium to facilitate the establishment of a distributed NKG GNSS analysis centre.