

## *NKG Resolutions 2022*

*No 1 Reference Frames*

*No 2 Gravity, geoid, and the IHRF*

*No 3 InSAR*

*No 4 GNSS positioning*

*No 5 NKG awards*

## *Resolution no 1. Reference frames*

### **The Nordic Geodetic Commission (NKG)**

**recognising** the increasing need for joint analysis of global and national geospatial data sets from various data sources, and the importance of accurate/associated reference frame information,

**recognising** the work of NKG on joint coordinate and velocity solutions and subsequent velocity models, transformations, and their implementation into PROJ to facilitate public use,

**noting** a general lack of standardization of reference frame and transformation information,

**recommends** to continue developing transformations and associated products and

**encourages** its member countries to address standardization of reference frames and transformations.

## *Resolution no 2. Gravity, geoid and IHRF*

### **The Nordic Geodetic Commission (NKG)**

**recognising** new space and terrestrial gravity data are available,

**recognising** the importance of improved global potential field models and the need for high precision geoid models,

**noting** that new marine gravity data are available, especially from the FAMOS project,

**noting** the importance of improved potential values for the reliable transformation between IHRF and regional/national vertical reference frames,

**recommends** to continue maintaining the NKG gravity database,

**encourages** developing a revised NKG geoid model and

**also encourages** to provide uncertainties for the NKG geoid model.

## *Resolution no 3. InSAR*

### **The Nordic Geodetic Commission (NKG)**

**recognising** the significant potential societal and geodetic benefits from ground motion products derived from InSAR, including the European Ground Motion Service,

**noting** the potential benefits of integrating SAR/InSAR into geodetic infrastructures,

**recommends** NMAs, research institutes and universities to continue exploring SAR/InSAR and possible synergies related to integrating InSAR and geodetic infrastructures.

## *Resolution no 4. GNSS positioning*

### **The Nordic Geodetic Commission (NKG)**

**recognising** the rapid development of advanced real-time positioning applications like autonomous platforms, and the interest for such applications in society,

**recognising** the vulnerability of real-time positioning applications for GNSS interference (e.g. jamming and spoofing),

**noting** the modernisation of existing GNSS (GPS and GLONASS), and finalising of new GNSS (e.g. Galileo and BeiDou) as well as the interest for new positioning techniques like precise point positioning (PPP),

**noting** the existing mature technology for real-time positioning available in the NKG region (Network-RTK) and the associated infrastructures and

also **noting** the importance of outreach activities to secure the geodetic reference frame to be included in real-time data streams from both positioning service and source of geospatial information, acknowledging the on-going standardisation initiatives (e.g. 3GPP and RTCM) regarding real-time positioning services,

**encourages** to *prepare* for the future, including *strategies* for how to benefit from the existing infrastructures and know-how, and to perform appropriate *research* and *development* of the geodetic infrastructure, in order to achieve efficient use of existing investments and know-how in this wider development.

## *Resolution no 5. NKG awards*

### **The Nordic Geodetic Commission (NKG)**

**recognising** that NKG has been one of the most successful scientific organizations when looking at results and benefits for the society during the last seven decades,

**recognising** that scientific excellence in front-line research and/or dedication to the NKG mission and its goals by its members have been the most important prerequisites for this,

**recognising** outstanding meritorious work for NKG and excellent contributions to geodesy by fellow colleagues,

**noting** that the revised NKG bylaws allow NKG to grant awards,

**requests** the NKG Presidium to prepare guidelines for one or more NKG awards by December 2023 enabling the first award(s) to be granted at the NKG summer school in 2024.

*Resolution no 6. Thanks!*

## **The Nordic Geodetic Commission and its members**

present at the 19th General Assembly of the Commission in Copenhagen, Denmark express their sincere thanks to the Danish Agency for Data Supply and Infrastructure (SDFI) and the Danish National Space Institute (DTU Space), to the scientific committee and to the local organizing committee for the fantastic arrangement and fruitful atmosphere during the meeting and at the social events.