



**INTERNATIONAL UNION OF GEODESY AND GEOPHYSICS
UNION GEODESIQUE ET GEOPHYSIQUE INTERNATIONALE**

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This monthly newsletter is intended to keep IUGG Members and individual scientists informed about the activities of the Union, its Associations and interdisciplinary bodies, and the actions of the IUGG Secretariat, Bureau, and Executive Committee. Past issues are posted on the IUGG [website](#). E-Journals may be forwarded to those who will benefit from the information. Your comments are welcome.

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1. IUGG – The People at the Forefront (IV)

Niels Andersen, Treasurer 2019-2023

Born on a farm in the middle of Denmark I became interested in nature and all its wonders during my childhood. Being capable of reading books I soon got interested in science, so it was easy for me to choose direction of my future studies resulting in an M. Sc. degree in physics, geophysics and mathematics from University of Aarhus in 1983.

I was fortunate immediately after to get a position at the Geodetic Research Department at the Danish Geodetic Institute primarily due to the fact that I was good at programming! Here I learned to adjust big geodetic triangulations network and soon became interested in geodetic research as such being right in the middle of the transition between physical geodesy to space geodesy with the introduction of the GPS system.

In parallel with the employment at the Geodetic Institute I received my Ph.D. in Geodesy from the University of Copenhagen with special focus on leveling and Earth tides. A wonderful thing being at the Geodetic Institute was the strategy or focus on the value that researchers should learn how to measure in order to understand directly and get a feeling of data capture and the related errors. It is important to understand the full value chain from data capture over modeling to the final results.



Being a boy of nature, I was happy to be out in the field measuring all over the Kingdom of Denmark and this has adhered to me ever since even as I ended up behind a desk!

In the early nineteen's, now being employed at the National Survey and Cadastre of Denmark, I managed more geodetic and surveying projects and became more and more interested in management. So, when a great opportunity occurred to be head of Cartographic Department at the Agency I finally chose to go in the management direction. The big task was to convert the old analog topographical map production into a fully digital production including maps covering Denmark, The Faroe Islands and Greenland. We succeeded in five years time to get a world leading digital production line, including now satellite images, but it also gave me good opportunities to go into the field together with the skilled cartographers for in situ checks, especially in the Faroe Islands and Greenland. It was a wonderful time and with a steep learning curve, so after these five years I was appointed head of the research and head of the division of geodesy and cartography now also being member of the Agency's Executive Board.

Denmark has always been very active in IAG and now I also got involved in work at that time ICSU, now ISC being secretary in the Federation of Astronomical and Geophysical Data Analysis Services (FAGS) for a period. This really triggered my interest in the IUGG and Council work and gave good insight in the science union's importance.



Philip Woodworth, PSMSL, Nicole Capitaine, Observatoire de Paris and the Treasurer in Paris at ICSU, (right): Enjoying field work in the Arctic

Following the general Danish political wish to separate research from the agencies, the research part of the National Survey and Cadastre was in 2005 merged with Danish Space Research Institute at the University of Copenhagen forming a new sector specific and independent institution called Danish National Space Center with Egil Friis- Christensen as CEO. Here I soon became deputy director and started a wonderful cooperation with Egil Friis-Christensen. However, again due to new political wishes we were in 2007 merged with the Technical University of Denmark (DTU) forming the Danish National Space Institute – DTU Space where I continued as deputy director. Now the main Danish space activities were united in one powerful organization and I have had the great pleasure to follow the full transition from physical geodesy to space geodesy and research.

In that period I also became involved in the Danish Continental Shelf Project which was established as a consequence of the United Nations Convention on the Law of the Sea (UNCLOS) of 1982 making it possible for a coastal states to make sovereignty claims beyond 200 nautical miles. Here I became very interested in law of the sea issues and its interaction with technology and science seen in an overall international political perspective. During this work and interest I also had the honor to be elected by IAG as member of the Advisory Board on the Law of the Sea (ABLOS) and even chaired ABLOS for a period. Today the law of the sea matters is one of my main interests and I serve as senior adviser to Danish Ministry of Foreign Affairs on national sovereignty issues and delimitation

experiencing in an excellent and fundamental way the practical use of geodesy, namely the calculation of precise coordinates.

2. IUGG2019 – Video Recordings



The video recordings of major events during the IUGG General Assembly 2019 in Montreal, Canada, incl. Ceremonies and Union Lectures are now available for download at the [IUGG YouTube page](#).

3. IUGG Grants Program Report: UN-GGRF in Latin America

In 2018, the project of the International Association of Geodesy (IAG) “Implementation of the United Nations’ Resolution on the Global Geodetic Reference Frame (UN-GGRF) for Sustainable Development in Latin America” was awarded an IUGG Grant. A summary report of this project was published in the [IUGG E-Journal Volume 19 No. 12](#), agenda item 4.



The final project report is now available [here](#).

4. Announcement: CMG2020 - IUGG Conference on Mathematical Geophysics



The 33rd IUGG Conference on Mathematical Geophysics (CMG2020), organized by the IUGG Union Commission on Mathematical Geophysics (IUGG-CMG), will be held during 22-26 June 2020 in the Seoul National University, Seoul, Rep. of Korea. The conference aims to discuss key theoretical and observational aspects of solid earth, ocean, atmosphere, cryosphere, climate and other contemporary topics in mathematical geophysics. The [Program](#) of the Conference covers six themes: Data Sciences, Machine Learning and Artificial Intelligence; Geophysical Fluid Dynamics; Geophysical Inversion: Theory, Algorithms, and Applications; From the Core to the Space: Different Spheres with Common Mathematics; Mathematics for Natural Hazards Science; and Mathematics for Climate Science. The abstract submission deadline is **1 April 2020**. For more information please visit the [CMG2020 web site](#).

The first IUGG conference on mathematical geophysics was held in Moscow and Leningrad (now St. Petersburg), USSR (now Russia) in 1964. Initially the meetings were organized on a semi-annual basis. Since 1986 conferences became larger and were held biennially, in Oosterbeek (The Netherlands, 1986), Blanes (Spain, 1988), Jerusalem (Israel, 1990), Taxco (Mexico, 1992), Villefranche (France, 1994), Santa Fe (USA, 1996), Cambridge (UK, 1998), Villefranche sur Mer (France, 2000), Torino (Italy, 2002), New York (USA, 2004), Sea of Galilee (Israel, 2006), Svalbard (Norway, 2008), Pisa (Italy, 2010), Edinburgh (UK, 2012), Merida (Mexico, 2014), Paris (France, 2016), and Nizhny Novgorod (Russia, 2018). The CMG2020 is the first conference to be held in East Asia.

The CMG2020 Organizing Committee, and the IUGG-CMG Executive Committee

5. Announcement: COSPAR2020

The 43rd Scientific Assembly of the ISC Committee on Space Research (COSPAR) will be held in Sydney, Australia from 15 to 22 August 2020. All information concerning the scientific program, abstract submission, registration, and hotel reservations is available on the [website](#).

The deadline for abstract submission is on **14 February**.



6. Announcement: EMSEV2020



The biennial symposium “[EMSEV2020](#)” will be held in Taoyuan, Rep. of China, from 24-28 August 2020. The workshop will focus on the observation and understanding of various kinds of electromagnetic phenomena associated with earthquakes and volcanic eruptions particularly from a multidisciplinary point of view. It will be a great opportunity for students and early-career researchers to present their scientific research and achievements as well as a valuable occasion for developing interdisciplinary cooperation among researchers worldwide.

EMSEV (Electro-Magnetic Studies of Earthquakes and Volcanoes) is the Interdisciplinary IUGG Working Group supported by IAGA, IASPEI, and IAVCEI.

7. Announcement: SEDI2020

The 17th Symposium of SEDI, Study of the Earth's Deep Interior, a Committee of IUGG, will be held at the National Taiwan University (NTU) in downtown Taipei from 6-10 July 2020. The Institute of Earth Sciences, Academia Sinica, is in charge of the local organization. The conference aims at bringing together scientist of all disciplines related to SEDI which include composition, structure and dynamics of the core and deep mantle, core-mantle coupling and the rotation of the Earth, geomagnetic dynamo and magnetic field variations, paleomagnetism and the evolution of the Earth's

deep interior and planets. Abstract deadline is on **1 June 2020**, early bird registration ends on 1 May 2020. Information on the talks and program can be found [here](#).



8. AGU International Societies Meeting

A high level breakfast meeting was held during the AGU Fall Meeting 2019, with more than 20 attendees representing AGU, AOGS, DGG, EGU, FIGA, GSL, IUGG, JGU, MGU, and WCRP. The AGU leadership was fully present! IUGG was represented by Secretary General Alexander Rudloff. The current AGU Centennial's Legacy was discussed as well as a Global Participation at Meeting and Joint Activities, and AGU's Position Statements on Climate and Data. A final point was how to Broadening Coverage of Science Media and News. A follow-up meeting is planned on the occasion of the EGU General Assembly 2020.



AGU International Societies Meeting during the AGU Fall Meeting 2019

9. U.S. Senate passes AGU Centennial Resolution recognising the role of IUGG



On 19 December 2019, the U.S. Senate passed [S. Res. 460](#), congratulating the American Geophysical Union (AGU) on its centennial. The resolution recognises IUGG and the critical role Earth and space sciences and scientists play in society.

10. Meeting calendar

2020

February

- 17-22, GEO, Beijing, China, [GEO Data and Knowledge Week 2020](#)

March

- 2-8, IUGS, Delhi, India, [36th International Geological Congress](#)
- 10-12, IUGG, UNESCO-IOC, Paris, France, [Workshop on Sea Level Data Archaeology](#)
- 16-20, AGU, Flagstaff AZ, USA, [Chapman Conference on Distributed Volcanism and Distributed Volcanic Hazards](#)
- 22-28, IAG, Annapolis MD, USA, [11th IVS General Meeting](#)
- 31, IUGG, SCOR, Valparaiso, Chile, Surface Ocean - Lower Atmosphere Study (SOLAS) South America Community Workshop

2021

Association Scientific Assemblies

- 15-19 February, Rotorua, New Zealand, [IAVCEI Scientific Assembly](#)
- 28 June – 2 July, Montpellier, France, IAHS Scientific Assembly
- 28 June – 5 July, Beijing, China, IAG Scientific Assembly
- 18-23 July, Busan, Rep. of Korea, [IACS-IAMAS-IAPSO Joint Scientific Assembly](#)
- 22-27 August, Hyderabad, India, [IAGA-IASPEI Joint Scientific Assembly](#)

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