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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 <u>website</u>. 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 (XIV)

Regine Hock, President of the International Association of Cryospheric Sciences (IACS), 2017-2021

I still remember my first attempts on skis during a vacation in the Swiss Alps around the age of six when I was mesmerised by the beauty of the surrounding glaciers with magnificent ice falls and scary-looking crevasses. The scenery was just so much more spectacular than the mellow hills around my hometown Weinheim in southwest Germany. These early experiences instilled a life-long love for mountains and glaciers although I never imagined then that I could and would make a living measuring and studying glaciers around the world, thereby combining a favourite hobby with work.

I studied hydrology at Freiburg University, Germany, but drawn more to the solid state of water and eager to do field work. I wrote my M.Sc. thesis on Storglaciären, a small well-studied glacier in northern Sweden, where I poured dye into the glacier to investigate the glacial drainage system. I received my PhD at ETH Zürich in 1997 on the topic of modelling glacier melt and discharge. It was based on extensive field work (once again) on Storglaciären, this time installing weather stations and measuring glacier runoff. Time spent on Storglaciären would only intensify when I moved to Kiruna



Post symposium excursion of the IACS-IGS-CliC symposium held in New Zealand in 2017, together with former IACS presidents Charles Fierz and Ian Allison.

in northern Sweden for a 3-yr research position that was administered through Stockholm University. After an additional 6 years in Stockholm, I accepted a faculty position at the Geophysical Institute at the University of Alaska, in Fairbanks, drawn by the prospect of living close to glaciers several orders larger than those in Europe. Just a couple of months ago, after almost 14 years in Alaska, I returned to Europe for a professorship at Oslo University.

I have been extremely fortunate to have had the opportunity to visit and measure glaciers around the world including Greenland, Antarctica, Svalbard, Europe, Bolivia, New Zealand and Alaska, witnessing first-hand the rapid glacier

changes that are underway worldwide. I feel privileged that I have had the chance to work with many extraordinarily talented students and young scientists as well as colleagues from around the world in the quest to understand, model and project glacier changes and their impact on sea level and runoff.

Beyond research, I have greatly enjoyed serving in various capacities in international professional organisations, and feel especially honoured to have the opportunity to contribute to shaping the path of the IACS, the youngest association of the IUGG, as President during the last years, building on the successful work of previous IACS officers. The experience has been particularly pleasant and stimulating due to a dedicated and supportive IACS Bureau and newly emerging interassociation collaborations; the latter IACS is poised to strengthen in the years to come.



Drilling an ablation stake on Westfork Glacier in Alaska in 2012.

2. IUGG Meeting Support 2020/2021 – Awarded Meetings

IUGG co-sponsors symposia and workshops appropriate to Union disciplines of study. In 2020, IUGG allocated USD 25,000 to support 15 scientific meetings. Due to the COVID-19 pandemic only one of these meeting was held in 2020, one meeting was cancelled and 13 meetings were moved to 2021. In 2021, IUGG will support a total of 14 scientific meetings as listed below (the IUGG Association that endorsed the meeting is indicated in brackets):

- 1. 43rd COSPAR Scientific Assembly, Sydney, Australia, 28 January-4 February (IUGG)
- 2. Quadrennial International Radiation Symposium, Thessaloniki, Greece, 14-18 June (IAMAS)
- 3. International Conference on Clouds and Precipitation, Pune, India, 2-6 August (IAMAS)
- 4. International Summer School in Glaciology, McCarthy, Alaska, USA, summer (IACS)

- 5. Third General Assembly of the African Seismological Commission, Kasane, Botswana, 6-10 September (IASPEI)
- 6. 37th General Assembly of the European Seismological Commission, Corfu, Greece, 19-24 September (IASPEI)
- 7. International Ozone Commission Quadrennial Ozone Symposium QOS2020, Seoul, Rep. of Korea, 3-9 October (IAMAS)
- 8. Surface Ocean Lower Atmosphere Study (SOLAS) Summer School 2021, Mindelo, Cape Verde (IAMAS)
- 9. Space Geodesy and Ionosphere Research (SGI 2021) Workshop, Berlin, Germany, Autumn (IAG)
- 10. Reference Frames in Practice Seminar, Lima, Peru, November (IAG)
- 11. Understanding the Climatic Response to Strong Volcanic Eruptions First VolMIP Meeting, Venice, Italy (IAMAS)
- 12. Tsunamis in Latin America and the Caribbean: Recent Developments and Plans for the Future, Quito, Ecuador (IAPSO)
- 13. 13th General Assembly of the Asian Seismological Commission, Sharm El-sheikh, Egypt (IASPEI)
- 14. Regional Assembly Latin American and Caribbean Seismological Commission, Quito, Ecuador (IASPEI)

3. IUGG Supports the Kyoto Landslide Commitment 2020



On 5 November 2020, the <u>World Tsunami Awareness Day</u>, Kathy Whaler, IUGG President and John LaBrecque, Chair of the IUGG Union Commission on Geophysical Risk and Sustainability (GRC), attended the Launching Session of the <u>Kyoto Landslide Commitment</u> 2020 (KLC2020) for the Global Promotion of Understanding and Reducing Landslide Disaster Risk.

The IUGG President presented the following IUGG commitment to KLC2020:

Greetings at the 5th World Landslide Forum. The IUGG values its participation in the series of International World Landside Fora organized by the International Consortium on Landslides. As a signatory of the Kyoto Landslide Commitment 2020, the IUGG pledges the activities of its eight associations and six commissions to the implementation of the Sendai Framework for disaster risk reduction.

The IUGG encourages activities to improve the observation and understanding of Earth System dynamics essential to the successful implementation of the Sendai Framework. For example, the geophysical community developed seismic and satellite synthetic aperture radar applications for the wide area detection of precursory deformation, the measurement of debris flows and the estimation of earthquake damage that can guide first responders and recovery efforts. Another example is the ability of regional geodetic networks to estimate finite fault models that provide more accurate predictions of tsunami. These same GNSS networks can measure the ionosphere's response to land and sea surface deformation, thereby providing a means of detecting the development and propagation of tsunamis and validating the predictions derived from surface deformation. Rapid analysis algorithms, broadband communications and cloud computing will improve early warning of impending landslides and tsunamis. These advances can provide local communities with a better awareness of changes in disaster risk, and guidance in disaster preparedness and response.

Landslides can also be a component within a web of cascading hazards. This places emphasis upon the need for multi- and trans-disciplinary contributions to understanding landslide risk posed by rainfall, earthquakes, volcanic eruptions, tsunami, and climate change that all contribute to the goals of the KLC2020. Such collaboration is essential to achieving the vision of the Sendai Framework and captured within KLC2020, and IUGG is proud to continue to play its part.

Kathy Whaler, IUGG President

Following up on IUGG's support of KLC, the GRC Chair presented the following draft proposal on future collaboration:

On their 100th anniversaries, the IUGG and American Geophysical Union (AGU) collaborated in two Centennial Symposia to review, discuss and recommend actions that can be taken to implement Disaster Risk Reduction as called for in the Sendai Framework. The proceedings of the Centennial Symposia are available online (<u>AGU 2018</u>, <u>IUGG 2019</u>). A key finding of the symposia was the need to provide support mechanisms for multidisciplinary collaboration in the development of multidisciplinary career paths for early career earth scientists.

In pursuing this goal with respect to our separate disciplines, Prof. Kyoji Sassa, Secretary-General of KLC2020 Secretariat, and I collaborated on a proposal for a meeting of principals to discuss the formation of a consortium of principal contributors to the GNSS Early Warning of Tsunami and Landslides within the Indo-Pacific region. I am happy to report that the IUGG funded our proposal. The participation of the International Consortium on Landslides (ICL) will bring a broad community of landslide research and response agencies and institutions to study of marine and coastal landslides that can significantly complicate the early warning of tsunami formation and intensity. We are currently working to obtain the support of the Group on Earth Observations (GEO) for this meeting.

We now have the resources to support planning the scope and goals for this meeting and a portion of the meeting itself. The meeting will be multi-disciplinary including specialist scientists, computer specialists, representative government agencies, and commercial enterprises.

We ask the ICL to proceed with a joint effort between the ICL and GRC to begin the development of a meeting of principals. Initial discussions should involve virtual discussions. Planning should call for a face to face meeting to consolidate agreements.

John LaBrecque, GRC Chair

4. IUGG Supports African Light Source Project

On 10 November 2020, the IUGG President signed a letter of support for the <u>African Light Source (AfLS) Project</u>.

AfLS is engaged in developing the case for an advanced light source to be designed, constructed and operated on the African continent, driven by science and technologies of interest to Africa.

Central to the science case for an African advanced light source is concomitant investment in all the sciences that present users to advanced light sources, prominent amongst them being the geosciences. The AfLS has consistently called for governments and



universities to invest in local infrastructure for teaching and research in geochemistry, geophysics, soil science, petrology, etc., including major equipment for spectroscopy, light scattering, imaging, crystallography and microscopy.

AfLS is supported by The Abdus Salam International Centre for Theoretical Physics (ICTP), the International Union of Pure and Applied Physics (IUPAP), the International Atomic Energy Agency (IAEA), and other partners.

More information about the history of AfLS can be found <u>here</u>.

5. IUGG2023 – Professional Conference Organiser



The local organisers of the IUGG General Assembly 2023 (IUGG2023), which is planned to be held from 11 to 20 July 2023 in Berlin, Germany, decided to hire <u>C-IN</u> as the professional conference organiser. C-IN is well familiar with IUGG. It already organised the General Assembly 2015

in Prague, Czech Republic, and the General Assembly 2019 in Montreal, Canada, together with JPdL.

6. IAGA Awards - Call for Nominations

Please consider nominating a colleague from the IAGA disciplines for one of the <u>IAGA Awards</u>. IAGA has three categories to honour deserving members of the community:

- The IAGA Early Career Award,
- The <u>IAGA Long Service Award</u>, and
- The Shen Kuo Award for Interdisciplinary Achievements

The IAGA Early Career Award is given for outstanding early career contributions at topical meetings and workshops sponsored by IAGA. The Long Service Award honours important services to the IAGA community in technical or managerial positions. The Shen Kuo Award acknowledges outstanding interdisciplinary science in the fields of research covered by IAGA. More information about the eligibility and the nominating procedure can be found <u>here</u>.

The deadline for all nominations is **31 December 2020**. The awards will be presented at the <u>2021</u> <u>IAGA-IASPEI Joint Assembly</u>, 21-27 August 2021.

Monika Korte, IAGA Secretary General



Ø IAGA

International Association of Geomagnetism and Aeronomy

7. IACS-IAMAS-IAPSO Joint Scientific Assembly 2021 – ONLINE SEMINAR SERIES INSTEAD



The <u>IACS-IAMAS-IAPSO</u> Joint Scientific <u>Assembly</u> which was planned to be held in Busan, Rep. of Korea, from 18 to 23 July 2021, has been cancelled. Instead, an Online Seminar Series will be organised from **19 to 23 July 2021**. More information will follow soon.

8. IAGA-IASPEI Joint Scientific Assembly 2021 – ONLINE ONLY

The IAGA-IASPEI Joint Scientific Assembly 2021 which was planned to be held in Hyderabad, India, from 22 to 27 August 2021, will be held online only. Due to the COVID-19 pandemic, the Local Organising Committee, IAGA and IASPEI leaderships have realised that a high international attendance is very unlikely. The Joint Assembly will be organised on a fully virtual platform on the originally foreseen dates from **21 to 27 August 2021**. More information will be published in the 2nd circular and on the Assembly <u>website</u> soon.



IAGA and IASPEI Schools will be organised also fully virtually in the week before the Joint Assembly.

9. IAHS Scientific Assembly 2021 – POSTPONED TO 2022



Due to the COVID-19 pandemic, International Association of Hydrological Sciences (IAHS) has decided to postpone the next Scientific Assembly (<u>IAHS 2022</u>) which was planned to be held from 28 June to 2 July 2021, to **30 May to 3 June 2022** in Montpellier, France.

This important biennial event will provide an opportunity to communicate, exchange and project on all major topics in

the hydrological sciences within the framework of sessions organized by all IAHS Commissions and Working Groups with partners.

IAHS 2022 will have three major focuses:

- Panta Rhei decade (2013-2022) on change in hydrology and society
- UPH initiative, "Unsolved Problems in Hydrology"
- the 100th anniversary year of IAHS

This event will be accompanied throughout this week by many other "water-related" events for scientists, the general public and schoolchildren.

More information will follow soon.

10. ISC – General Assembly 2021

Due to the ongoing COVID-19 pandemic, the ISC Governing Board has taken the decision to hold a virtual <u>2021 General Assembly</u> from 11 to 15 October 2021, and to reschedule the Muscat Global Knowledge Dialogue to early 2023.



In addition, the ISC Governing Board cordially invites all ISC Members to participate in an <u>Extraordinary General Assembly</u>, to be held virtually from 1 to 5 February 2021.

11. Awards and Honours

International Association of Volcanology and Chemistry of the Earth's Interior (IAVCEI)

The 2020 IAVCEI Award for Volcano Surveillance and Crisis Management (VSCM) was delivered to IG-EPN, the *Instituto Geofísico-Escuela Politécnica Nacional of Ecuador*. For the first time in IAVCEI history, the celebration was held in online mode on 20 October 2020, involving over 100 participants plus Facebook watchers, and was recorded for subsequent display on the IAVCEI website. The VSCM Award, given every two years, honours the personnel from volcano observatories or institutions responsible for monitoring volcanoes that have made a remarkable contribution to the mitigation of volcanic hazards and volcanic risks.

American Geophysical Union (AGU)

AGU announced its <u>Union Medallists</u>, <u>Awardees</u>, <u>and Prize Recipients</u> for their excellence in scientific research, education, communication, and outreach. AGU will host an online celebration to formally recognise this year's recipients during the <u>2020 AGU Fall Meeting</u>, on Wednesday, 9 December at 22:00 UTC. Among the 2020 Medallists, *Donald B. Dingwell* (Germany), IAVCEI President (2015-2019), was awarded the Harry H. Hess Medal.

Congratulations!

12. Meeting Calendar

Meetings are subject to change due to the COVID-19 pandemic.

December

- 1-17, AGU, Online, AGU Fall Meeting 2020

2021

January

- 28-4 February, COSPAR, Sydney, Australia, <u>43rd COSPAR Scientific Assembly</u>

February

- 1-5, ISC, Online, Extraordinary General Assembly of the International Science Council
- 9-12, IAG, Hobart, Australia, Australian Earth Sciences Convention 'Core to Cosmos'

March

- 20-26, IASC, Lisbon, Portugal, Arctic Science Summit Week 2021

- 29-31, IAG, Online, <u>1st ICCC Workshop on Geodesy for Climate Research</u>
- IAGA, Sao Jose dos Campos, Brazil, VIII SBGEA & VIII SimFAST Joint Symposium

April

- 19-30, EGU, Online, EGU General Assembly 2021

May

- 9-14, IWA, Copenhagen, Denmark, <u>IWA World Water Congress & Exhibition</u>
- 12-14, IASPEI, GFZ, Potsdam, Germany, <u>Cermak7 7th International Meeting on Heat</u> <u>Flow and the Geothermal Field</u>
- 26-28, IAG, Ljubljana, Slovenia, EUREF 2021 Symposium

June

- 5-12, IAVCEI, Hokkaido, Japan, 14th CCVG Field Workshop on Volcanic Gases
- 7-9, Columbus OH, USA, 16th Workshop on Antarctic Meteorology and Climate
- 7-12, IASPEI, Želiv Premonstratensian Monastery, Czech Republic, 19th International Workshop on Seismic Anisotropy & 2nd Workshop on Active and Passive Seismics in Laterally Inhomogeneous Media
- 12-15, ISC, Brisbane, Australia, Sustainability Research & Innovation Congress 2021
- 14-18, IAMAS, Thessaloniki, Greece, Quadrennial International Radiation Symposium
- 14-18, IAVCEI, Heraklion, Greece, <u>Cities on Volcanoes 11</u>
- 22-26, IAG, Wuhan, China, <u>19th International Symposium on Geodynamics and Earth Tides</u>
- 28-2 July, CTBTO, Vienna, Austria, CTBT Science and Technology 2021 Conference
- 28-5 July, IAG, Beijing, China, IAG Scientific Assembly
- IACS, McCarthy AK, USA, International Summer School in Glaciology
- IAGA, Bergen, Norway, 8th HEPPA-SOLARIS
- IAGA, Kazan, Russia, XIXth IAGA Workshop on Geomagnetic Observatory Instruments, Data Acquisition and Processing
- IAMAS, SCOR, WCRP, Mindelo, Cape Verde, SOLAS Summer School 2021

July

- 4-10, ISPRS, Nice, France, 24th ISPRS Congress
- 11-17, IAHS, Perugia, Italy, 2020 International Summer School on Hydrology
- 12-16, IAHS, Wallingford, UK, <u>Hydro-JULES Summer School 2020</u>
- 19-23, IACS, IAMAS, IAPSO, Online, <u>Seminar Series</u> (replaces the IACS-IAMAS-IAPSO Joint Scientific Assembly planned to be held in Busan, Rep. of Korea, from 18-23 July)
 19-23, ICA, Florence, Italy, 30th International Cartographic Conference
- 25-31, IUHPST, Prague, Czech Republic, <u>26th International Congress of History of Science</u> and Technology

August

- 1-6, AOGS, Singapore, <u>AOGS 18th Annual Meeting</u>
- 2-6, IAHS, Moscow, Russia, <u>International Conference on the Status and Future of the</u> <u>World's Large Rivers</u>
- 2-6, IAMAS, Pune, India, <u>International Conference on Clouds and Precipitation</u>
- 14-22, IUCr, Prague, Czech Republic, <u>25th Congress and General Assembly of the</u> <u>International Union of Crystallography</u>
- 16-20, IAGA, Online, 5th IAGA School
- 16-20, IASPEI, Online, IASPEI School
- 16-20, IGU, Istanbul, Turkey, <u>34th International Geographical Congress</u>
- 16-21, IUGS, New Delhi, India, <u>36th International Geological Congress</u>

- 16-27, IAU, Busan, Rep. of Korea, <u>31st International Astronomical Union General</u> <u>Assembly</u>
- 22-27, IUTAM, Milan, Italy, <u>25th International Congress of Theoretical and Applied</u> <u>Mechanics</u>
- 21-27, IAGA, IASPEI, Online, IAGA-IASPEI Joint Scientific Assembly
- 28-4 September, URSI, Rome, Italy, <u>23rd URSI General Assembly and Scientific</u> <u>Symposium</u>

September

- 6-10, IASPEI, Kasane, Botswana, 3rd General Assembly of the African Seismological Commission
- 12-16, IAMAS, Manchester, UK, International Global Atmospheric Chemistry Conference
- 13-17, IUGG, Potsdam/Berlin, Germany, IUGG Business Meetings 2021
- 14-16, IAG, Perugia, Italy, <u>The 6th satellite soil moisture validation and application</u> <u>workshop</u>
- 19-24, IASPEI, Corfu, Greece, 37th General Assembly of the European Seismological Commission
- 27-1 October, IACS, IAHS, WMO, UNESCO-IHP, Reykjavik, Iceland, <u>Cryosphere 2021 –</u> <u>Symposium on Ice, Snow and Water in a Warming World</u>
- 27-1 October, IAG, Boulder CO, USA, IGS Workshop 2021: Science from Earth to Space
- AGU, Flagstaff AZ, USA, <u>Chapman on Distributed Volcanism and Distributed Volcanic</u> <u>Hazards</u>
- IAG, Berlin, Germany, Space Geodesy and Ionosphere Research (SGI 2021) Workshop
- IASPEI, Cargèse (Corsica), France, <u>3rd International School on Earthquakes: Nucleation,</u> <u>Triggering, and Relationship With Aseismic Processes</u>

October

- 3-9, IAMAS, Seoul, Rep. of Korea, <u>Quadrennial Ozone Symposium 2021</u>
- 11-15, ISC, Online, <u>2nd General Assembly of the International Science Council</u>
- 20-22, IUPAP, Beijing, China, 30th General Assembly of the International Union of Pure and Applied Physics

November

- 2-6, WLF, Kyoto, Japan, 5th World Landslide Forum
- 8-11, CODATA, WDS, Seoul, Rep. of Korea, International Data Week 2021
- 16-18, IAHS, Cotonou, Benin, <u>Hydrology of the Major African Basins</u>
- IAG, Lima, Peru, Reference Frames in Practice Seminar

December

- 13-17, AGU, New Orleans LA, USA, AGU Fall Meeting 2021

Places and Dates to be confirmed

- IAMAS, Venice, Italy, Understanding the climatic response to strong volcanic eruptions First VolMIP meeting
- IAPSO, Quito, Ecuador, Tsunamis in Latin America and the Caribbean: Recent Developments and Plans for the Future
- IASPEI, Sharm El-sheikh, Egypt, 13th General Assembly of the Asian Seismological Commission
- IASPEI, Quito, Ecuador, Regional Assembly Latin American and Caribbean Seismological Commission

Association Scientific Assemblies 2022

- 20-24 January, IAVCEI, Rotorua, New Zealand, <u>IAVCEI Scientific Assembly</u>
- 30 May 3 June, IAHS, Montpellier, France, IAHS Scientific Assembly

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