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This informal newsletter is intended to keep IUGG Member National Committees informed about the activities of the IUGG Associations, and actions of the IUGG Secretariat. Past issues are posted on the IUGG website (<http://www.iugg.org/publications/ejournals/>). Please forward this message to those who will benefit from the information. Your comments are welcome.

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1. Geoscience International

International geoscientific unions (geounions) have been coordinating and promoting international efforts in Earth and space sciences since the beginning of the 20th century. Thousands of scientists from many nations and specific scientific disciplines have developed ways of cooperation through international unions and learned how to work together to promote basic geosciences. The geounions have been initiating, developing, and implementing international cooperative programs, setting scientific standards, developing research tools, educating and building capacity, and contributing to science for policy. The role of geounions in and their added value to the promotion of geosciences internationally are analyzed in a new paper published in the journal *History of Geo- and Space Sciences*. The history of the geounions and the development of international cooperation in geosciences are reviewed in the paper in the context of scientific and political changes over the last century. History is considered here to be a key element in understanding and shaping the future of geounions. Scientific and organizational aspects of their activities, including cooperation with international and intergovernmental institutions, are analyzed using the example of IUGG. The geounions' activities are compared to those of professional societies of geoscientists (e.g., the American Geophysical Union, European Geosciences Union, and Asia Oceania Geosciences Society). Future development of scientific unions and their role in the changing global landscape of geosciences are discussed. The paper is an open access article, and can be downloaded from <http://www.hist-geo-space-sci.net/7/103/2016/hgss-7-103-2016.pdf>

2. Finance Committee renewed

Because of the vacancy occurring after the death of David Collins, Chair of the Finance Committee and according to the Union By-Law 12c, the Executive Committee appointed Nasser Abou-Ashour (an IUGG Council Delegate) as a new Member of the Finance Committee for 2017-2019. The IUGG Council endorsed the appointment on 19 January 2017. The Finance Committee elected Jan Krynsky as Chair of the Committee. The Finance Committee consists now of 4 people: Nasser Abou-Assour (Egypt), Jan Krynsky (Poland), Corina Risso (Argentina), and Virendra Tiwari (India).

3. Frequently Asked Questions about IUGG

Would you like to learn more about IUGG, its benefits and the activities IUGG is involved in? Check out our new brochure answering frequently asked questions:
http://www.iugg.org/about/IUGG_FAQ.pdf.

4. Report on the Second Snow Science Winter School

The Second Snow Science Winter School (SSWS2) took place in Preda and Davos, Switzerland from 14 to 20 February 2016. It was organized by the WSL Institute for Snow and Avalanche Research SLF Davos, Switzerland, and the Finnish Meteorological Institute. The school aimed at teaching graduate students modern snow measurement techniques. In addition to the lectures, all traditional and modern field instruments were available for the students to get hands-on experience in the field. During the SSWS2, advanced techniques such as micro-tomography, measurement of specific surface area by reflection and spectroscopy, near-infrared photography and high-resolution penetrometry were taught.

The main purpose of the school was to allow students to learn current and emerging techniques for objective characterization of the snowpack for various applications. Traditional methods for snow quantification were also covered. The teaching method adopted was a hands-on approach in a real environment, supported by introductory lectures. Field exercises typically took place after morning lectures and in the afternoon. For the field exercises and subsequent reporting, the students were assigned to small groups of 3-4 people. The groups learned to study different kinds of snowpack (forest area, open area, above tree-line area) with different instruments. In addition, during the half-day trip to Davos, the students had the possibility to visit the cold lab. After each field day, students were required to use time with their group to summarize their measurements and to start analyzing the measured data. The groups of students operated independently, relying on skills acquired on the first day to operate instruments and apply correct field measurement protocols. Lecturers monitored the process correcting for possible errors, so a consistent field dataset from eight groups was acquired. The SSWS2 was supported by IUGG and IACS.

26 students were selected from 64 applicants. The number of male and female students was almost equal. Of the selected students, 4 were post-docs, 20 PhD students, and 2 advanced Master students. The students came from Asia, Europe, and North America. The high number of applications clearly shows a significant interest in the subject. The eight groups presented their results in written reports, which were reviewed by the lecturers. The reports showed a good understanding of the applicability of the methods in different environments, their ease of use and limitations. All students were very

positive about the winter school, and expressed their satisfaction with the program. The main minor concern was that time was too limited for working with the data during the winter school. This will be considered for the third School to be held in Finland from 12 to 18 February 2017. The lecturers are convinced that this school will form a well-educated base of snow scientists with in-depth knowledge of quantitative methods to measure snow properties.



The School participants (photo: Martin Schneebeli)

Submitted by Cecilia Cetti, SSWS2 organizer

5. Report on the Workshop of the IAVCEI Commission on Volcanic Lakes

On 21 August 1986, a lethal CO₂ cloud burst from the bottom waters of Lake Nyos in the Northwest Region of Cameroon killed 1,734 people and over 3,500 livestock. Intensive discussions on the physical and chemical processes behind this gas escape from Lake Nyos led to setting up the International Working Group on Crater Lakes (IWGCL), which became the IAVCEI Commission on Volcanic Lakes (CVL). To commemorate this event, CVL organized its 9th workshop (CVL9) in Cameroon's capital Yaounde from 14 to 16 March 2016. CVL9 was inaugurated by H.E. Madeleine Tchuinte, the Minister of Scientific Research and Innovation. CVL9 was organized by the Institute of Geological Research and Mining of Cameroon backed by the CVL steering committee. 32 talks were presented during the first three days of the workshop. The attendance of local researchers and students was impressive. CVL9 showed that the initial controversy on Lake Nyos has been replaced by harmony and agreement. The decades-long dedication and project management by the Japanese team is an example of international collaboration and capacity building, unique and exemplary, beyond any border or socio-economic limit. Currently, a self-sufficient team of Cameroonian experts has returned home after doing their PhDs in Japan.

Lake Nyos was visited on 19 March 2016 for a multi-disciplinary sampling and measurement campaign, and to learn about the impact the 1986-event had on society. On 22 March, Lake Barombi Mbo, the largest maar lake in Cameroon, was sampled at depth for the first time. The meeting showed that the CVL is an active group of passionate researchers assuring creative and socially responsible research. The CVL Steering Committee recognized Minoru Kusakabe for his role as the "CVL founding father" and career-long dedication to Lake Nyos and, especially, for his open-headedness

towards local researchers. In his name and example, the CVL will award the “Kusakabe Award” every three years. The CVL Steering Committee was confirmed and recruitment of young researchers for future follow-up in the CVL guidance has started. The CVL Members should select the site for CVL10 in 2019. Bids have been received from Italy, Mexico, and New Zealand.

Submitted by Dmitri Rouwet, CVL Chair

6. News for the International Council for Science

Members of Strategy Working Group and Transition Task Force appointed to develop frameworks for possible ICSU-ISSC merger

The International Council for Science (ICSU) and International Social Science Council (ISSC) announced the list of selected members of the Strategy Working Group (SWG) and Transition Task Force (TTF) that will develop modalities for a possible merger of the two councils. Following an in-principle vote in favor of a merger by members of ISSC and ICSU at a joint meeting in October 2016, the members of two organizations mandated the TTF to develop a proposed structure and governance arrangements for the future organization resulting from a possible merger. ICSU and ISSC members further agreed to develop the SWG in order to prepare a high-level strategy for the new organization. The SWG and TTF will draft relevant documents to be submitted to ICSU and ISSC Members in July 2017 for approval at the joint ICSU-ISSC meeting in Taipei in October 2017. If a merger is approved in Taipei, this document will guide the establishment of new structures and statutes for the new organization. The list of the members of the Committees can be found at: <http://www.icsu.org/news-centre/news/top-news/members-of-strategy-working-group-and-transition-task-force-appointed-to-develop-frameworks-for-possible-icsu-issc-merger>

ICSU publishes independent mid-term review of Integrated Research on Disaster Risk (IRDR) programme

ICSU has published the 2016 Review of the Integrated Research on Disaster Risk (IRDR) program, led by an independent panel whose conclusions are intended to inform the next 3-4 year phase of the program. The review concludes that “upon its establishment, IRDR was a well-conceptualized, timely and innovative - potentially even pioneering - initiative in the increasingly important domain of disaster risk reduction.” However, “progress has been slow, and the program foci and results too limited to meet the goals of the Science Plan and the expectations created by the program.” Reasons for the disappointing results include: (i) decisions during inception prompted by challenges in how such Interdisciplinary Bodies are set up; (ii) fast turnover in Executive Directors at the international program office in Beijing (the first such office set up outside Europe by ICSU); (iii) a series of governance, leadership and management weaknesses, including a failure to raise sufficient program funds to give life to its strategic intent. Nevertheless, the review panel concluded that IRDR remains a very worthwhile endeavor, as it maintains a significant niche and comparative advantage that continue to provide a good value proposition for stakeholders, both scientific and non-scientific. “It remains well positioned in an important area of work, and has been making fair progress in spite of significant obstacles.” The policy relevance of the program has been underscored by the preparation for and adoption of the Sendai Framework on Disaster Risk reduction in 2015 by the world’s governments. IRDR played a key role in advocacy for science and the scientific community throughout that process. The panel singled out two key choices that need to be made if IRDR “is to be more than ‘just another scientific program’”. First, initiate completely new areas based on newly identified knowledge gaps that present major or intractable challenges for the field. Second

strengthen, amplify and accelerate activities around its existing foci, and thus move further in line with the scope and intent of the initial Science Plan. The report presents key recommendations for improvement of IRDR activities. More information on the report can be found at: <http://www.icsu.org/news-centre/news/top-news/icsu-publishes-independent-mid-term-review-of-integrated-research-on-disaster-risk-ir-dr-programme>

Source: ICSU Newsletters

7. Awards and honors

Donald B. Dingwell, IAVCEI President, was awarded the 2016 Arthur L. Day Medal of the Geological Society of America (GSA). “Don’s research utilizes the fundamentals of physics and chemistry to provide our community with complete descriptions of silicate liquids, glasses, and magmas. His diverse contributions to petrology, mineralogy, and geology have helped bridge the gap between “equilibrium” in largely static magma chambers, to highly disequilibrium, dynamic systems, where magmas flow, fracture, erupt, and disperse. The merit of his dedicated efforts has illuminated a myriad of magmatic and volcanic phenomena, forming the basis for the new field of experimental volcanology” (citation by Yan Lavallee). Congratulations to Don!



Medal presentation (photo: GSA)

The Medal was established in 1948 through a donation by Arthur L. Day, Founding Director of the Geophysical Laboratory of the Carnegie Institution of Washington. It is awarded annually, or less frequently at the discretion of the GSA’s Council, to recognize outstanding distinction in the application of physics and chemistry to the solution of geologic problems, with no restriction to the particular field of geologic research. It was Dr. Day’s wish to provide an award to recognize outstanding achievement in research and to inspire further effort, rather than to reward a distinguished career, and so it has been the longstanding practice of The Society to award this medal to geoscientists actively pursuing a research career.

8. IUGG Association Scientific Assemblies 2017

The IUGG Associations will hold their Scientific Assemblies in 2017. Scientists of all nations are invited to participate in the scientific events, to discuss their new findings, methodologies, and hypotheses, and to initiate, plan, and review collaborative research projects. The table below presents the places and dates of the Scientific Assemblies as well as the deadlines for abstract submission and early-bird registration.

Association	Abstract Submission	Early-Bird Registration
Joint Scientific Assembly of the International Association of Geodesy (IAG) and the International Association of Seismology and Physics of the Earth's Interior (IASPEI) Kobe, Japan, 30 July-4 August 2017 http://www.iag-iaspei-2017.jp/	8 February	10 May
Scientific Assembly of the International Association of Hydrological Sciences (IAHS) Port Elizabeth, South Africa, 10-14 July 2017 http://cwrr.ukzn.ac.za/iahs/call-for-papers/iahs-2017-in-south-africa---invitation	14 February	30 April
Joint Scientific Assembly of the International Association for the Physical Sciences of the Oceans (IAPSO) , the International Association of Meteorology and Atmospheric Sciences (IAMAS) , and the International Association of Geomagnetism and Aeronomy (IAGA) Cape Town, South Africa, 27 August-1 September 2017 http://www.iapso-iamas-iaga2017.com/	12 March	5 May
Scientific Assembly of the International Association of Volcanology and Chemistry of the Earth's Interior (IAVCEI) Portland OR, USA, 14-18 August 2017 http://iavcei2017.org/	17 March	1 June

9. CTBT Science and Technology Conference 2017

The registration and abstract submission for the Science and Technology Conference (SnT2017) of the Preparatory Commission on Comprehensive Nuclear-Test-Ban Treaty (CTBT) organization to be held from 26 to 30 June 2017 at the Hofburg Palace in Vienna, Austria, is open at <https://ctnw.ctbto.org/>. Abstracts can be submitted for scientific oral or poster presentations. The deadline for abstract submission is Monday, **6 February 2017**. The major goals of the SnT2017 are: (i) to enlarge the scientific community engaged in test-ban monitoring, including young scientists; (ii) to promote the wider scientific application of data that are used for test-ban verification; (iii) to enhance the exchange of knowledge and ideas between the CTBT organization and the broader scientific community; and (iv) to present to the scientific community the needs of nuclear test monitoring and verification. For more information: <https://www.ctbto.org/specials/snt2017/>.

Submitted by W. R. Bell and N. M. Ozel, SnT2017 organizers

10. Meeting calendar

A calendar of meetings of interest to IUGG disciplines (especially those organized by IUGG Associations) is posted on the IUGG website (<http://www.iugg.org/calendar.php>). Individual Associations also list more meetings on their websites according to their disciplines.

February

- 12-17, IACS, Wellington, New Zealand, IACS Scientific Assembly 2017. Web: <http://www.climate-cryosphere.org/meetings/upcoming-clic/2017-cryosphere-in-a-changing-climate-conference>
- 17-19, IUGG, IAMAS, Mitzpe Ramon, Israel, The Atmospheric Global Electric Circuit (GEC)
- 20-24, IASPEI, Wellington, New Zealand, 10th International Workshop on Statistical Seismology (StatSei10). Web: <http://www.gns.cri.nz/Home/News-and-Events/Events/StatSei10/Welcome>

March

- 14-16, ICTP, IUGG, Antigua, Guatemala, Conference on the Science of Climate Change: a focus on Central America and the Caribbean Islands. Web: <http://indico.ictp.it/event/7949/>
- 27-30, German Geophysical Society (DGG), GFZ, Potsdam, Germany, DGG Annual Meeting. Web: <http://dgg2017.dgg-tagung.de/start/>

April

- 3-7, IAG, ISPRS, Rosario, Argentina, 1st International Symposium – Applied Geomatics and Geospatial Solutions. Web: <http://www.geodata2017.com.ar/index.php/en>
- 18-21, IAHS, UNESCO, New Delhi, India, International Conference on the Status and Future of the World's Large Rivers. Web: <http://worldslargerivers.boku.ac.at/wlr/>
- 23-25, IGU, La Paz, Bolivia, Geographies for Peace 2017. Web: <http://igu-online.org/geographies-for-peace-geografias-para-la-paz-igu-ugi-thematic-conference-23-25-april-2017/>
- 23-28, EGU, Vienna, Austria, European Geosciences Union General Assembly 2017. Web: <http://www.egu2017.eu/>

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