



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

## **The IUGG Electronic Journal**

**Volume 18 No. 1 (1 January 2018)**

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. Editorial: Highlights of 2017**

The year 2017 was another successful year for the IUGG. The Union was involved in various activities during the last year and showed its strength in international cooperation and science promotion. Major activities and events are highlighted below.

- *Association and Union Commission activities.* The IUGG Associations organized their scientific assemblies: IACS in New Zealand, a joint assembly of IAG and IASPEI in Japan, a joint assembly of IAGA, IAMAS, and IAPSO in South Africa, IAVCEI in the USA, and IAHS in South Africa. The Union Commission on Planetary Sciences (UCPS) held its first symposium in Germany. The Union Commission for Data and Information (UCDI) was renewed to reactivate the commission supporting and strengthening IUGG science through integrated scientific data and information activities.
- *Scientific meetings.* IUGG co-sponsored nine scientific meetings in countries across the Caribbean, Europe, North America, and Oceania.
- *Research programs and projects.* IUGG together with the International Union of Geological Sciences (IUGS) continued to support the International Lithosphere Program (ILP).

- *Implementation of the IUGG Strategic Plan.* The IUGG Visioning Committee developed the Implementation Actions for the IUGG Strategic Plan (for more information please see article 3 of this issue).
- *Science education.* IUGG and the Abdus Salam International Centre for Theoretical Physics (ICTP) in Trieste, Italy, have continued their cooperation in geophysical and geodetic education and science collaboration. IUGG co-sponsored six geoscience education events in ICTP as well as in Guatemala, Rwanda, and Vietnam.
- *Special activity.* The Task Force for the IUGG Centennial (TF100) was formed to prepare the Union for its 100<sup>th</sup> anniversary in 2019 and to develop a program for the celebration, including activities related to publications, science and education, science policy and outreach, and the legacy of the centennial (the report of the TF100 is presented in article 5 of this issue).
- *Science policy.* (i) IUGG issued a statement “The Earth’s climate and responsibilities of scientists and their governments to promote sustainable development” highlighting the importance of scientific knowledge in policymaking regarding climatic change. (ii) IUGG presented a statement on the use of science in disaster risk reduction at the UNISDR Global Platform on Disaster Risk Reduction held in Cancun, Mexico. (iii) IUGG highlighted the importance of scientific research as well as periodic synthesis and assessment reports aimed at decision makers at the Global Forum on Science and Technology for Disaster Resilience held in Tokyo, Japan (for more information please see article 7 of this issue).
- *International Science Council.* Since its inception in 1919, IUGG has been a member of the International Research Council (IRC, 1919-1931), and its successors, the International Council of Scientific Unions (ICSU, 1931-1998), and the International Council for Science (ICSU, 1998 - present). In October 2017, ICSU and the International Social Science Council (ISSC) members agreed to merge the two councils and to form a new International Science Council (ISC) to be inaugurated in 2018 in Paris, France.
- *Cooperation.* (i) IUGG continued to strengthen its cooperation with scientific unions of ICSU including the GeoUnions and the International Union of Biological Sciences (IUBS). The IUGG President and Secretary General met with their colleagues from other eight GeoUnions (<http://www.icsu-geounions.org>) in Potsdam, Germany, and in Taipei, Republic of China to discuss joint activities and the future of the International Council for Science (ICSU). Together with IUBS and other international partners, IUGG participated in the ICSU project “Trans-disciplinary Research Oriented Pedagogy for Improving Climate Studies and Understanding”. (ii) IUGG also continued its cooperation with several interdisciplinary bodies of ICSU. Particularly, the Union participated in two workshops of CODATA held in Paris, France, and London, UK, as well as co-sponsored the 2017 CODATA Conference in St. Petersburg, Russia. (iii) IUGG contributed to the development of the scientific program of the Science & Technology Conference of the Preparatory Commission on the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO) in Vienna, Austria. (iv) IUGG took part in the World Landslide Forum in Ljubljana, Slovenia. (v) IUGG participated in the work of the Program Board of the Group on Earth Observations (GEO). (vi) IUGG continued its cooperation with the World Meteorological Organization (WMO), the Intergovernmental Panel on Climate Change (IPCC), the United Nations Education, Science and Culture Organization (UNESCO) via its International Hydrological Program (IHP), Earth Science and Geohazard Risk Reduction section, and the Intergovernmental Oceanographic Commission (IOC) as well as with scientific programs such as the World Climate Research Programme (WCRP), the Integrated Research on Disaster Risk (IRDR) Programme, the Global Framework for Climate Services (GFCS), Future Earth and with some other international and intergovernmental organizations, professional societies of geoscientists, and international programs.
- *Business meetings.* The meetings of the IUGG Bureau, the Executive Committee (EC), the Finance Committee (FC), the Scientific Program Committee (SPC) for the XXVII IUGG General

Assembly (IUGG2019), and the Task Force on the IUGG Centennial (TF100) were held at Palais des congrès, Montreal, Canada, from 18 to 22 September 2017.

Alik Ismail-Zadeh, IUGG Secretary General



(Photo: F. Kuglitsch)

*The IUGG Executive Committee and the Secretariat thank the Adhering Bodies and National Committees, Union Associations and their scientific bodies, Union Commissions and Committees as well as all individuals who contributed to strengthening international scientific cooperation in Earth and space sciences for the benefit of society and helped make the year 2017 exciting and productive.*

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## 2. Yearbook for 2018

IUGG Yearbook 2018 is now electronically available in PDF format at the IUGG website (<http://www.iugg.org/publications/yearbooks/yearbook2018.pdf>). Thanks to the National Committees and the Associations for helping to update the information in the IUGG Yearbook! During 2018, updates on addresses and other information in the Yearbook should be sent to the IUGG Secretariat ([secretariat@iugg.org](mailto:secretariat@iugg.org)) as soon as they are known. Our aim is to update the Yearbook as needed throughout the year. The Yearbook 2018 will be published together with the 2017 Annual Report in May 2018.

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### **3. Implementation Actions for the IUGG Strategic Plan**

Strategic planning is an important visioning process to determine a strategy, mission, goals, and major activities of the organization for the near future. In 2016, the IUGG Council approved the IUGG Strategic Plan for 2016-2023. To implement the Strategic Plan, the Bureau requested the Visioning Committee to develop Implementation Actions. The draft of the Actions was discussed by the Executive Committee and endorsed at its meeting in Montreal, Canada, in September 2017 with some suggested revision. The Visioning Committee revised the document and the Implementation Actions were approved by the IUGG Bureau on 15 December 2017. The work of the Visioning Committee is greatly acknowledged by the IUGG Executive. The Implementation Actions for the Strategic Plan can be found at: [http://www.iugg.org/special/IUGG\\_ImplementationActions4SP.pdf](http://www.iugg.org/special/IUGG_ImplementationActions4SP.pdf).

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### **4. Union membership and financial situation**

As of 1 January 2018, IUGG has 69 National Members including 59 countries in paying status (although some serious problems in payment exist for Bulgaria, Iran, F.Y.R. Macedonia, and Nicaragua). The paying members are placed in categories from 1 to 14 depending on their financial contribution to the Union (the membership dues rise with increasing category number). At present, the highest category used is category 11. The members pay dues according to a number of units assigned to their category (in category 1 the number of units is 1, and in category 11 the number is 35). According to a decision of the XXII IUGG General Assembly (Boulder, USA, 1995), the price of 1 unit is determined every year using an inflator index obtained from the Bureau of Labor Statistics, U.S. Department of Labor. In 2018, the price of 1 unit will be US\$ 1,975. The 59 paying members represent a total of 276 units, which is equivalent to a total income of US\$ 545,100. The funds received as dues are the basis for IUGG's operations as a scientific union, although Union Associations may have their own funds earned through book selling or donations. The funds are spent to support (i) scientific activities of Union Associations and Commissions; (ii) international scientific programs, projects and services; (iii) general and scientific assemblies, symposia, workshops, and schools; (iv) the IUGG Grants Program; (v) the International Lithosphere Program; (vi) the International Council for Science; (vii) travel of students, early career scientists, and scientists from developing countries to attend scientific meetings; and (viii) administration and management.

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

Aksel Hansen, IUGG Treasurer

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### **5. IAMAS Resolution Regarding Earth Observation**

Over recent decades data from satellite remote sensing systems has enabled huge advances in our understanding of the Earth system. Polar orbiting and geosynchronous Earth observation satellites can provide frequent observations of atmospheric, oceanic, cryospheric, hydrological and solid Earth conditions that are of value in operational applications and basic research. Such data form an essential

part of routine weather prediction and have been fundamental in advancing our predictive skill on short to medium-range time scales. They have also enabled improved warnings to be issued of severe weather conditions, such as hurricanes, severe convective storms and tornadoes. These observations have also contributed to investigation of climate variability and change, and parameters as diverse as sea level, the mass of the Greenland and Antarctic ice sheets, sea ice extent, stratospheric ozone concentration, atmospheric aerosols and trace gases. Continuity in such observations is essential at a time when greenhouse gas concentrations are higher than has occurred for a million years and there is great concern of possible anthropogenic influences on the climate system. However, over the last few years there has been an increasing threat of cessation of a number of satellite programmes that could bring to an end important time series of observations essential for monitoring the state of the Earth. The International Association of Meteorology and Atmospheric Sciences (IAMAS) discussed this situation at its Scientific Assembly in Cape Town, South Africa during August/September 2017 and agreed to issue a resolution urging the nations operating satellite missions with Earth observation capability to maintain and enhance these systems for the benefit of society and for the improved scientific study of the Earth. The resolution was approved by the IAMAS Executive in November 2017 and subsequently endorsed by the IUGG Bureau. It is available online at: [http://iamas.org/Resolution\\_on\\_Earth\\_Observation.pdf](http://iamas.org/Resolution_on_Earth_Observation.pdf), and has also been posted on the ICSU website: <https://www.icsu.org/current/news/iamas-urges-united-states-to-continue-support-of-earth-observation-systems>. It is being distributed widely to all members of IUGG, the UN and relevant intergovernmental and international organizations, along with organizations and individuals concerned with Earth observation and related activities.

John Turner, IAMAS President

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## 6. Report of the Task Force on the IUGG Centennial

One year ago, the IUGG established a Task Force to develop ideas, coordinate activities and take on some of the planning responsibilities for the centenary celebrations of the founding of the IUGG in 1919. The Task Force on the IUGG Centennial – known as TF100 – has the following members: *Chris Rizos* (Chair, IUGG Bureau Member and Chair of the Visioning Committee), *George Balmino* (IUGG Secretary General, 1991-1999), *Athena Coutenis* (Chair of the IUGG Honor and Recognition Committee), *Alik Ismail-Zadeh* (IUGG Secretary General), *Franz Kuglitsch* (IUGG Executive Secretary / Assistant Secretary General), *Johanna Salminen* (Secretary of the Finish National Committee for IUGG and early career scientist), *Michael Sideris* (IUGG President), *Hans Volkert* (Chair of the IUGG Union Working Group on History), *Denise Smythe-Wright* (IAPSO President), and *Gordon Young* (Member of the Local Organizing Committee of the 2019 IUGG General Assembly). At its face-to-face meeting in Montreal, Canada, on 18 September 2017, a work plan was proposed and is currently being implemented.

“The History of the IUGG” will be written and published. The lead author is JoAnn Joselyn, IUGG Secretary General (1999-2007). JoAnn will cover topics such as the early development of the Union, from the early 20<sup>th</sup> century – its officers, changes to the structure of the IUGG, its assemblies, and more – to its position today and tomorrow. The second part of the book will focus on the Associations themselves, and will therefore be authored by nominees from these Associations. The first draft is expected to be ready for review by early 2018. It is planned that the book will be completed by December 2018.

The IUGG and its Associations will not be the only entities celebrating the IUGG’s centenary. Adhering Bodies have been contacted and are encouraged to organize their own celebratory activities

and events. For example, they may organize scientific conferences or workshops, design posters or exhibitions, issue special stamps, and so forth. The IUGG's centenary is an opportunity to promote the IUGG, its constituent entities, its partners, its projects and its achievements. While it is important to look back at highlights and achievements spanning one hundred years, TF100 believes that we must also articulate how the IUGG can, and will, continue to encourage research and education in the geosciences, inform governmental and international policy, and foster global research coordination. (These reflect to some extent also the core principles of the IUGG, as articulated in its Strategic Plan 2016-2023.)

In order to raise the visibility of the IUGG it has been decided to participate in meetings of major professional geoscientific bodies such as the American Geophysical Union (AGU traces its history from 1919, when the U.S. National Committee for IUGG was set up), the Asia Oceania Geosciences Society (AOGS), and the European Geosciences Union (EGU). The IUGG will seek to co-organize appropriately themed sessions at these meetings in 2018 and 2019, as well as have an exhibition booth where promotional materials will be distributed.

The IUGG and its Associations have always had an international outlook, and have sought to engage with scientists from less developed countries, for example through the award of travel grants to attend symposia and workshops. Furthermore, to address its mission of promoting education and leadership, the priority for such travel support has been Early Career Scientists, so that they may attend workshops and schools, attend conferences to present the results of their research, and network with fellow geoscientists. As a legacy of the IUGG's centenary celebrations TF100 is proposing the establishment of an Early Career Earth and Space Scientists Network.

The IUGG General Assembly 2019, to be held in Montreal, Canada, will provide an extremely valuable platform to celebrate the IUGG's centenary. The Local Organizing Committee is working hard to ensure that the participants at the GA will be able to take part in the centennial celebrations. There will be a series of activities, including special sessions and events, displays and promotional materials.

Finally, an important activity that is being organized by TF100 is the IUGG Centenary Day, to be held on 29 July 2019, at the UNESCO Headquarters in Paris, France, with the theme "100 years of International Cooperation in the Earth and Space Sciences". This event almost coincides with the day of the IUGG establishment on 28 July 1919 in Brussels, Belgium, by nine Founding Member countries: Australia, Belgium, Canada, France, Italy, Japan, Portugal, the United Kingdom, and the United States. The celebration of the IUGG's centenary on this day will include welcoming speeches, keynote presentations that highlight the challenges for international geoscience in the coming decades, and awarding commemorative plaques.

Chris Rizos, TF100 Chair

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## **7. News from the International Council for Sciences**

### ***International Science Council***

The new merged organization – the International Science Council – will be launched at a founding General Assembly in Paris, France from 3 to 5 July 2018. *Science* magazine published the editorial "Blurring disciplinary boundaries" by Gordon McBean, and Alberto Martinelli on the new International Science Council (<http://science.sciencemag.org/content/358/6366/975.full>). Following the decision to merge in October 2017 at the Joint Meetings in Taipei, members of ISSC and ICSU

will be asked to vote in an electronic General Assembly to finalize the legal implementation of the ICSU-ISSC Merger Agreement. This electronic General Assembly will be held 11-16 May 2018.

### ***World Science Forum 2017***

The World Science Forum (WSF) was held in Jordan from 7 to 11 November 2017. Over 2500 science leaders from over 120 countries gathered at the WSF to call for a more responsible and ethical use of innovation to address the social and economic relevance, influence, and responsibilities of science. The WSF series was inspired by the success of the meeting “World Conference on Science for the Twenty-First Century: a New Commitment” held 26 June - 1 July 1999 in Budapest, Hungary, and convened by UNESCO and the International Council for Science (ICSU), in co-operation with other partners. Driven by the need for a forum for discussion between the scientific community and society, the Hungarian Academy of Sciences in partnership with UNESCO and ICSU established a series of follow-up events called WSF. This time the WSF was held in Jordan, its first time in the Middle East region. IUGG Secretary General Alik Ismail-Zadeh attended the WSF.

The Opening Ceremony of the Forum was attended by the King of Jordan and the President of Hungary. The Forum was welcomed by Princess Sumaya bint El Hassan, Chair, World Science Forum; László Lovász, President, Hungarian Academy of Sciences; Gordon McBean, ICSU President; Rush D. Holt, CEO, American Association for the Advancement of Science (AAAS). A Plenary Session “Science for Peace” was moderated by Michio Kaku, Theoretical physicist, bestselling author, acclaimed public speaker, renowned futurist, and popularizer of science, City University of New York. A keynote lecture was given Prince El Hassan bin Talal, Chair of the Jordan Higher Council for Science and Technology. Among the speakers were: Irina Bokova, Director-General, UNESCO (video message); Grace Naledi Pandor, Minister of Science and Technology, South Africa; Mark Ferguson, Chief Scientific Adviser to the Government of Ireland; Michinari Hamaguchi, President, Japan Science and Technology Agency (JST); and Lassina Zerbo, Executive Secretary, Preparatory Commission for Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO).

Among many noteworthy sessions and panel discussions, two events organized by ICSU should be mentioned. The thematic session “The Future of the Universality of Science” was organized by the ICSU Commission on Freedom and Responsibility of Science. The universality of science in its broadest sense is about developing a truly global scientific community based on equity and non-discrimination. It is also about ensuring that science is trusted and valued by societies across the world. As such, it incorporates issues related to the conduct of science; capacity building; science education and literacy; access to data and information and the relationship between science and society. A Plenary Session “Energy and Water Nexus – Intelligent Management for Sustainability and Fairness” examined the most acute resource challenges in the host region through the critical interdependency of water and energy security. Water scarcity in Jordan and the Levant has the potential to further compromise social and political stability of the region. Scientists have a role to play in developing better management systems through enhanced cooperation, knowledge exchange and institutional strengthening; improving water conservation and energy efficiency; building local capacity in water and energy sectors; and working together on transboundary resource sharing to build regional resilience. Opening channels of communication between states where there is political tension can, in turn, help to build trust and promote cooperation on other issues. Two IUGG experts, Prof. Gordon McBean, IUGG Fellow and ICSU President, and Prof. András Szöllösi-Nagy, Water World Council, participated in the panel discussion. More information on the Forum can be found at: <https://worldscienceforum.org/>

### ***COP23 side event on climate change***

ICSU and the World Climate Research Programme (WCRP) co-organized a side event during COP23, 6-17 November in Bonn, Germany, to explore how climate change is shaping changes in the natural and human environment – potentially beyond the limits in which species, including humans, can adapt. Speakers presented scientific progress in exploring and understanding the impact of climate change on the human and natural environment, and gave some examples where climate change impacts push some of our planet’s regions to the limits of habitability. Participants enjoyed the discussion on the socio-economic implications of climate extremes and associated risks to human health, terrestrial ecosystem, transport infrastructures and ocean acidification. The take home message is that science brings critical value to climate negotiations on mitigation targets and adaptation measures. Global and local/regional science provides key information on the limit laid upon the adaptation measures in a wide range of habitability dimensions (human health, ecosystem, infrastructure, etc.). Participants emphasized that science should be widely communicated not only to decision makers but also to the general public, and the current gap in information flow has to be filled. An innovative approach for network-to-network collaboration and technical development is sought, in response to which the climate science community such as WCRP and Future Earth are working on closer cross-community engagements and under the global scientific umbrella of ICSU.

Source: ICSU website

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### **8. Meeting at the Jordanian Adhering Body to IUGG**

The IUGG Secretary General Alik Ismail-Zadeh visited the Royal Jordanian Geographic Centre in Amman, the Adhering Body to IUGG, and met the Centre’s President Brig. Gen. Dr. Awni Khasawneh, who is the President of the Jordan National Committee for IUGG, and other members of the Jordan National Committee. They discussed recent activities of the Union, and how IUGG can help the Jordan National Committee in promoting international scientific cooperation for peace in the Middle East region.

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### **9. Report on the Global Forum on Science and Technology for Disaster Resilience 2017**

The Global Forum on Science and Technology for Disaster Resilience was held in Tokyo, Japan, from 23 to 26 November. The Forum was organized by the Science Council of Japan (SCJ), the United Nations Office for Disaster Risk Reduction (UNISDR), the Scientific Programme “Integrated Research on Disaster Risk” (IRDR), the International Council for Sciences (ICSU), and co-sponsored by several international and national organizations including IUGG. The objectives of the Forum were to pursue steady implementation of the four priorities for action of the 2015 Sendai Framework for Disaster Risk Reduction, and to develop a plan for actions. H.E. Dr. Robert Glaser, Special Representative of the UN Secretary-General for Disaster Risk Reduction and Head of UNISDR, participated in the Forum. The Crown Prince of Japan Naruhito attended the Closing Ceremony of the Forum.

The Forum considered seven basic topics: Understanding disaster risk; strengthening disaster risk governance to manage disaster risk; investing in disaster risk reduction for resilience; “Build Back Better” in recovery, rehabilitation and reconstruction; promotion of interdisciplinary collaboration; strengthening of national platforms; and the concept of periodic synthesis reporting. To promote the use of science in DRR policy making and to promote coordination among scientific and technological

research activities at national, regional and global levels, synthesis of scientific evidence should be produced in a timely, accessible and policy-relevant manner. This includes comprehensive knowledge on the state of science and technology related to the identification of disaster risks, the assessment of the socio-economic impact of disasters, and the approaches to substantial reduction of human and economic losses that should be presented in a clear, easy-to-understand way for the worldwide application of disaster risk reduction policies. Integrated synthesis reports should be produced periodically (i.e., mid-term and final reports during the period of the Sendai Framework) and by thematic areas of work under the Sendai Framework priorities for action by coordinating international scientific and technological research initiatives. Collaboration should be strengthened not only among the disaster risk reduction community but also with other areas closely related to disaster risk reduction, such as those concerning climate change mitigation and adaptation measures and the achievement of the sustainable development goals. IUGG Secretary General Alik Ismail-Zadeh participated in the Plenary Panel on “Periodic synthesis report on the state of science and technology for disaster risk reduction”.

The Forum concluded by accepting the statement “Science and technology action for a disaster-resilient world”. The Global Forum on Science and Technology for Disaster Resilience 2017 in Tokyo provided the best opportunity to ascertain the contribution and future actions through discussion among global scientists and to share the message with all stakeholders, including policy makers and the private sector. In support of the implementation of the Science and Technology Roadmap, the following needs under the four priorities for action of the Sendai Framework were identified to be urgently addressed:

- To develop a system for collection, archiving, management, analysis, modeling and using of data concerning disaster risk and disaster damage and losses. In support of policy makers and practice, to establish and use reliable scientific frameworks for evaluating disaster risk on a regular basis, as a function of the identification and assessment of hazards, vulnerability, and exposure including single and concatenated events. The use of scientific tools, including geospatial information systems, should be promoted for providing and sharing disaster risk information at different scales before, during and after disasters.
- To contribute to strengthening disaster risk governance to reduce disaster risk.
- To encourage investment in disaster risk reduction for resilience and to develop and implement tailor-made methods to assess disaster risks and share those among relevant government agencies and key stakeholders including international financial institutions and the private sector at large as the main investor in all countries.
- To promote "Build Back Better" in recovery, rehabilitation and reconstruction.
- To promote and implement interdisciplinary and transdisciplinary collaboration. To assess anthropogenic and technological risks as well as disaster risks associated with natural hazards, we should develop innovative approaches and technologies for risk assessment from both interdisciplinary and transdisciplinary perspectives including the humanities and social sciences.
- To produce periodic synthesis reports on the state of science and technology for risk-sensitive development and investment. To understand and measure the status and progress of science and technology in disaster risk reduction, we propose producing periodic synthesis reports in collaboration between “cognizing” science and “designing” science in a transdisciplinary way as well as to enhance resilience by promoting evidence-based policies for disaster risk reduction that clearly factor in prediction, prevention and response strategies.
- To contribute to national platforms for more effective use of science and technology.

Increased disaster risk demands an urgent response. Inaction is no longer an option. The support of all stakeholders is strongly requested.

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## 10. Jubilee



(Photo: T. Beer)

Congratulations to **Tom Beer**, IUGG President 2007-2011, on the occasion of his 70<sup>th</sup> birthday! Since retiring from the Commonwealth Scientific and Industrial Research Organization (CSIRO), Tom Beer has worked for his son's company, Safe System Solutions Pty Ltd, an Australian road safety and traffic engineering consultancy that was awarded the 2017 Prince Michael International Road Safety Award. Prior to his current position, he led the Climate Research Program of the Centre for Australian Weather and Climate Research (CAWCR), a partnership between CSIRO and the Australian Bureau of Meteorology.

Tom Beer was a founder of the IUGG Union Commission on Geophysical Risk and Sustainability (GRC) in 2000, becoming its first Chair. He served IUGG as Bureau Member and Vice President before he was elected President in 2007. He was a founder of the IUGG Commission for Climatic and Environmental Change (CCEC) in 2011, and currently is the Commission's Chair. Tom serves as an IUGG Liaison officer to the World Climate Research Programme (WCRP) and on the Committee for Scientific Planning and Review of the International Council for Science (ICSU). In 2016, he received both the University of Sydney Alumni Award for International Achievement and the American Geophysical Union International Award. He has been elected as an Academician of the Hungarian Academy of Sciences and in 2016 was invited by the President of the Academy to be a member of the International Advisory Board for the National Water Sciences Research Programme.

Tom Beer is an international expert on environmental risk management, including greenhouse gas and air quality issues and particularly their application to transport and to health. He was part of the team that won the CSIRO Chairman's medal in 2000 with his component being the analysis of greenhouse gas emissions from hybrid electric vehicles. He was elected a Fellow of the Australian Institute of Energy, having set up the Alternative Fuels research stream of the CSIRO Energy Transformed Flagship, and was also elected a Fellow of the Clean Air Society of Australia and New Zealand, having founded their Risk Special Interest Group specifically to examine issues related to the environmental sustainability of fuels. From 2001 to 2010 he applied life-cycle assessment and risk assessment methods to alternative transport fuels and coordinated a number of influential studies. He has been a lead author, and an expert panel member, for the Intergovernmental Panel on Climate Change (IPCC), which sent him a certificate of appreciation when the IPCC was awarded half of the 2007 Nobel Peace Prize. Tom Beer is the author or editor of over twenty-five books, over 100 articles in refereed journals, a similar number of book chapters and papers in conference proceedings, and over 50 specialized restricted consultancy reports. We wish Tom great health and happiness!

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## 11. Awards and honors

At the Fall Meeting of the American Geophysical Union (AGU) in New Orleans, USA, in December 2017, a new class of AGU Fellows were honored for their "exceptional scientific contributions and gained prominence in their respective fields of Earth and space sciences". Among the 2017 AGU

Fellows are *George Helffrich* (Japan) and *Paul Tackley* (Switzerland), both Members of the Executive Committee of the IUGG Union Commission on the Study of the Earth's Deep Interior (SEDI); *Alberto Montanari* (Italy), President of the IAHS International Commission on Water Resources Systems (ICWRS); *Teruyuki Nakajima* (Japan), IAMAS Secretary General; and *Daniel Schertzer* (France), Member of the Executive Committee of the IUGG Union Commission on Mathematical Geophysics (CMG). Congratulations to Alberto, Daniel, George, Paul, and Terry!

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## 12. 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.

### January

- 7-12, AGU, Quinamavida, Chile, Chapman Conference on Merging Geophysical, Petrochronologic, and Modeling Perspectives to Understand Large Silicic Magma Systems. Web: <http://chapman.agu.org/silicic-magma>
- 15-17, IAG, ISPRS, Zurich, Switzerland, 14th International Conference on Location Based Services. Web: <http://lbs18.ethz.ch/>
- 15-19, GEO, Hyderabad, India, Geospatial World Forum. Geo-enabling 4th Industrial Revolution. Web: [www.geospatialworldforum.org](http://www.geospatialworldforum.org)

### February

- 4-8, AOGS, EGU, Tagaytay, Philippines, New Dimensions for Natural Hazards in Asia: An AOGS-EGU Joint Conference. Web: <http://www.nathazards.org/public.asp?page=home.htm>
- 22-23, CGMW, Paris, France, 2018 CGMW General Assembly. Web: <https://ccgm.org/en/content/7-general-assembly>
- 26 February – 2 March, IAVCEI, Neuquén, Argentina, Geochemical Techniques Applied to Active Volcanoes. Web: <https://citevaunrn.wixsite.com/cursodeposgrado2018>

### March

- 4-9, AGU, Cascais, Portugal, Chapman Conference on Particle Dynamics in the Earth's Radiation Belts. Web: <http://chapman.agu.org/particle-dynamics/>
- 18-21, ICA, IGU, ISPRS, IUGG, URSI, Istanbul, Turkey, Gi4DM 2018 GeoInformation for Disaster Management. Web: <http://www.gi4dm2018.org/>
- 18-23, AGU, Puerto de la Cruz, Tenerife, Canary Islands, Spain, Chapman Conference on Stratospheric aerosol in the post-Pinatubo era: Processes, Interactions, and Importance. Web: <http://chapman.agu.org/stratospheric-aerosol/>
- 22-23, IAPSO, IUGG, Lombok, Indonesia, 2nd IndoOS Review Workshop.

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