



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

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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 Web site (<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. 90th Anniversary of IUGG: 1919-2009

The International Union of Geodesy and Geophysics (IUGG) was established in 1919 as an international, non-governmental, non-profit organization. IUGG is dedicated to the promotion and coordination of scientific studies of the Earth (physical, chemical, and mathematical) and its environment in space. These studies include the shape of the Earth, its gravitational and magnetic fields, the dynamics of the Earth as a whole and of its component parts, the Earth's shape, surface, internal structure, composition and tectonics, the generation of magmas, volcanism and rock formation, the hydrological cycle including snow and ice, all aspects of the oceans, the atmosphere, cryosphere, ionosphere, magnetosphere and solar-terrestrial relations, and analogous problems associated with the Moon and other planets. The Union encourages the application of this knowledge to societal needs, such as the development of mineral resources, mitigation of natural hazards and environmental preservation.

IUGG is comprised of eight semi-autonomous International Associations, each responsible for a specific range of topics or themes within the overall scope of Union activities. Through these Associations, IUGG promotes and enables research in the geosciences by providing a framework for collaborative research and information exchange. Scientific meetings allow geodesists and geophysicists from all countries of the world to discuss their respective methodologies, results, and hypotheses and to plan collaborative research projects. Publications, training programs, and videos instruct researchers, students, technicians, and the public on issues such as environmental protection and human safety. Work on standards provides rules of scientific definition,

procedure, and practice, international reference systems, and free exchange of data. And finally, resolutions passed by assemblies of IUGG and its International Associations promote issues of science policy on which members agree.

IUGG has initiated and/or vigorously supported collaborative efforts that have led to highly productive world-wide interdisciplinary research programs, such as the International Geophysical Year (1957-58), the Upper Mantle Project (1964-70), the International Hydrological Decade (1965-74), the Geodynamics Project (1972-79), the Global Atmospheric Research Programme (1967-80), the International Lithosphere Programme (1981-), the World Climate Research Programme, the International Decade for Natural Disaster Reduction, the International Heliophysical Year (2007-2009), the Electronic Geophysical Year (2007-2008), the International Year of Planet Earth (2007-2009), and the International Polar Year (2007-2008). These programs have set a model for international, interdisciplinary cooperation. Representing all geophysical disciplines, IUGG is involved in the projects and programs related to climate change, global warming, and related environmental impacts. IUGG scientists working under the umbrella of Inter-governmental Panel on Climate Change (IPCC) made us all proud, when IPCC shared the 2007 Nobel Peace Prize.

IUGG supported and supports initiatives by ICSU, especially those in which Earth sciences have a role to play. One major contribution has been the creation, soem 50 years ago, through ICSU, of the World Data Centers and the Federation of Astronomical and Geophysical Data Analysis Services. These are being transformed to the ICSU World Data System, from which the data gathered during the major programs and data products will be available to researchers everywhere. IUGG cooperates with UNESCO in the study of natural catastrophes, hydrological and oceanographic research. IUGG also places particular emphasis on the scientific problems of economically less-developed countries by sponsoring activities relevant to their scientific needs (e.g. Geosciences in Africa, Water Resources, Health and Well-Being etc.).

IUGG will celebrate its 90th Anniversary at four major scientific events organized in 2009 by seven Union Association: IASPEI Scientific Assembly (11-15 January, Cape Town, South Africa); joint Scientific Assembly of IAMAS-IAPSO-IACS (19-29 July, Montreal, Canada); IAGA Scientific Assembly (23-30 August, Sopron, Hungary); IAG Scientific Assembly (31 August – 4 September, Buenos Aires, Argentina); and IAHS Scientific Assembly (6-12 September, Hyderabad, India).

Congratulations to all IUGG Members, especially to those who were founders of the Union: Australia, Belgium, Canada, France, Italy, Japan, Portugal, UK, and USA!

2. Report on the IAVCEI Scientific Assembly

IAVCEI Scientific Assembly was held in Reykjavik, Iceland, 18-22 August 2008. The Assembly provided a platform for volcanologists worldwide to meet and to discuss the latest development in terrestrial and extra terrestrial volcanological research. 907 participants from 49 countries were registered to the Assembly. 138 students and young researchers from 38 countries and 54 researchers from less developed countries were awarded travel grants. The main theme of this Assembly was “Understanding Volcanoes”. Several symposiums and many sessions considered various research subjects: source to vent, volcanoes and eruptions, volcano-ice-water interaction, volcano-environment-society and some others (in total 640 oral and 598 poster presentations). The Assembly was conducted at the campus of the University of Iceland.

The President of Iceland, Mr. Ólafur Ragnar Grímsson, formally opened the Assembly. IUGG President, Dr. Tom Beer, welcomed the participants of the Assembly. Thor Thordarson and Kristín Vogfjörð gave an introductory lecture on the volcanoes and geodynamics of Iceland. IAVCEI awards were presented to the following IAVCEI members: The Kraft medal to Christopher G. Newhall, the Wager medal to Alessandro Aiuppa and Joachim Gottsmann, the George Walker medal to Diana C. Roman and Fukashi Maeno, and the Thorarinsson medal to Robert Stephen John Sparks. Hans Ulrich Schmincke presented a plenary talk on the evolution of volcanological research during the past 50 years. Stephen Sparks gave the Thorarinsson medal talk. Three IAVCEI honorary members were announced: Haraldur Sigurdsson, Franco Barberi, and Wally Johnson. Four IAVCEI commission and working group meetings were organized at the IAVCEI 2008 General Assembly: Commission on Explosive Volcanism; IAVCEI/IASPEI Joint Commission on Volcano-Ice Interactions; IASPEI/IAVCEI Joint Commission on Volcano Seismology; and IAVCEI Commission on Tephra Hazard Modelling. Three workshops were organized in conjunction with the IAVCEI Scientific Assembly: (i) field workshop at the Askja central volcano on silicic explosive volcanism and near vent successions; (ii) workshop on field based methodologies for quantifying volcanic activity; and (iii) workshop on recent developments in explosive volcanism.

Four pre-conference fieldtrips were organized: (i) historical flood lavas – the 1783-84 Laki and 934-940 Eldgja events; (ii) rift zone tectonics; (iii) Torfajökull area rhyolites and basalts; and (iv) Sandars and volcanic jökulhlaup deposits in South Iceland. Five fieldtrips were conducted after the Assembly: (i) Hekla volcano; (ii) Grímsvötn-volcano-ice interaction-Vatnajökull traverse; (iii) Phreatomagmatism in the Eastern volcanic zone; (iv) the Neovolcanic Zone, including Askja and Krafla; and (v) Tertiary flood basalts and the root of central volcanoes. The last field trip was organized in relation to the opening of the George Walker research centre in East Iceland. The research centre is dedicated to the pioneering research of George Walker in Eastern Iceland.

The products of IAVCEI Scientific Assembly in Iceland, including abstract volumes, meeting program, newsletters, and useful meeting data can be found at <http://www.iavcei2008.hi.is>

Received from Joan Marti, IAVCEI Secretary General

3. Report on the 7th General Assembly of the Asian Seismological Commission

The Asian Seismological Commission (ASC), one of the IASPEI Commissions, held its 7th General Assembly in Tsukuba, Japan, 24-27 November 2008, together with the 2008 Fall Meeting of the Seismological Society of Japan. IUGG sponsored the ASC Assembly. The main theme of the meeting was 'Sharing of Up-to-Date Science and Technology to Reduce Earthquake Disaster in Asia'. The total number of participants was 822 including 230 participants from 41 countries outside of Japan. 56 participants received financial support to attend the meeting. Keynote lectures given by scientists from China, India, Iran, Vietnam, and Japan presented the respective recent activities. In addition to keynote lectures, 22 oral and poster sessions were organized (with 600 papers presented), among them special sessions of the 2008 Wenchuan Earthquake (China) and the 2008 Iwate-Miyagi Nairiku Earthquake (Japan). Sessions on subduction zones, seismicity, and earthquake prediction attracted the attention of a large number of participants. Throughout all sessions active discussions and exchange of

information on recent seismology and earthquake disaster mitigation or prevention were taken place.

Received from Kazuro Hirahara, ASC President

4. International Year of Astronomy 2009

2009 has been declared International Year of Astronomy (IYA2009) by the U.N. General Assembly. IYA2009 is a global celebration of astronomy and its contributions to society and culture and marks the 400th anniversary of the first use of an astronomical telescope by Galileo Galilei. The IYA2009 Opening Ceremony was held in Paris on 15-16 January 2009 under the aegis of the UNESCO and the International Astronomical Union (IAU). In her welcome address, IAU President Catherine Cesarsky stated: "Astronomy is one of the oldest fundamental sciences. It continues to make a profound impact on our culture and is a powerful expression of the human intellect. Huge progress has been made in the last few decades. One hundred years ago we barely knew of the existence of our own Milky Way. Today we know that many billions of galaxies make up our Universe and that it originated approximately 13.7 billion years ago. One hundred years ago we had no means of knowing whether there were other solar systems in the Universe. Today we know of more than 200 planets around other stars in our galaxy and we are moving towards an understanding of how life might have first appeared. One hundred years ago we studied the sky using only optical telescopes and photographic plates. Today we observe the Universe from Earth and from space, from radio waves to gamma rays, using cutting edge technology. Media and public interest in astronomy have never been higher and major discoveries are front-page news throughout the world. The IYA2009 will meet public demand for both information and involvement".

The aim of IAY2009 is to stimulate worldwide interest, especially among young people, in astronomy and science under the central theme "The Universe, Yours to Discover". IYA2009 events and activities will promote a greater appreciation of the inspirational aspects of astronomy that embody an invaluable shared resource for all nations. IYA2009 promotes and facilitates the creation of international networks to foster a global appreciation of the role and value of science and astronomy as a unifying activity for humanity. IYA2009 should start up, connect and support networks of professional and amateur astronomers, educators and astrophysicists from all over the world, so that all these valuable sources of knowledge can be shared. The networks of hundreds, if not thousands of astronomical organizations, nationally and internationally, will be one of the legacies of IYA2009 that will last far beyond the year 2009.

More information at <http://www.astronomy2009.org>

5. Convocation of Geophysical Societies

The American Geophysical Union invited national and regional geophysical societies to discuss topics of common interest. The meeting was held in San Francisco on 15-17 December 2008. Representatives of several national geophysical societies (Australia, Canada, Finland, Hungary, Russia), European Geosciences Union, Asian Oceanic Geophysical Society, and IUGG attended the meeting. IUGG was represented by the Secretary General A. Ismail-Zadeh. The major topic of the agenda was enhanced networking among societies and individuals in the Earth, atmospheric, ocean and space sciences. Successful networking can serve many ends and include a

variety of very different components and activities. Geophysical societies should support the attraction and development of students and encourage them to become active in the worldwide geocommunity, and thus enhance the flow of excellence into the ranks of geoscience. The georganizations should maintain and enhance the quality of science and its contribution to society in all countries, reducing the gap among countries. Attendees discussed the idea of launching a new joint web site as a source of information on the scientific societies, meetings, programs, student opportunities etc.

6. Honors and Awards

David Kerridge of the British Geological Survey in Edinburgh received the Royal Astronomical Society (RAS) Award for Services to Geophysics for his leadership in a multi-agency study to assess the tsunami risk to the United Kingdom.

AGU Executive Director **Fred Spilhaus** has been made a RAS honorary fellow.

Congratulations to David and Fred!

7. Obituary: Carl Kisslinger (1926-2008)



Carl Kisslinger (USA), a geophysicist who furthered scientific and international understanding through his tireless devotion to his field, died on 31 December 2008 in Boulder. Kisslinger left a profound impact on the national and international geophysical organizations including the American Geophysical Union, the Seismological Society of America, and IUGG. He was elected IUGG Bureau Member (1975-1983) and Vice-President (1983-1991).

Kisslinger served on the University of Colorado faculty since 1972. He arrived from St. Louis University, where he chaired the department of geology and geophysics and where he had earned undergraduate and doctoral degrees. For seven years he served as director of CIRES, the Cooperative Institute for Research in Environmental Sciences, a partnership between the University of Colorado and NOAA. Esteemed by generations of undergraduate and graduate students and colleagues, he received the University Service Award from the Board of Regents in 1993. Among his many roles as a university citizen, he most recently served as president of the Retired Faculty Association. A seismologist, Kisslinger focused much of his research on earthquake fault zone processes, reducing seismic hazards and predicting earthquakes. Much of his observational work was based in the Aleutian Islands, where he worked in the 1970s on problems related to the monitoring of underground nuclear testing. Author, co-author, and editor of countless articles and books, he was one of four international editors of the International Handbook of Earthquake and Engineering Seismology, published in 2002, and the author of CIRES, 1967-2002, *Pioneering a Successful Partnership*.

8. IUGG-related meetings occurring during February - April 2009

A calendar of meetings of interest to IUGG disciplines (especially those organized by IUGG Associations) is posted on the IUGG web site [www.IUGG.org/calendar]. Specific information about these meetings can be found there. Individual Associations also list more meetings on their web sites according to their disciplines.

- February 9-11, ICSU-ROA, Pretoria, South Africa, International workshop of experts on Global Environmental Change in sub-Saharan Africa.
- February 23-26, IAHS, Port Elizabeth, South Africa, International Conference on Implementing Environmental Water Allocations.
- February 26-27, IACS, Innsbruck, Austria, 13th Alpine Glaciology Meeting.
- March 23-25, IAMAS, London, UK, Clouds and Turbulence Workshop.
- March 26-28, IAHS, Odessa, Ukraine, International Workshop "Genetic and probabilistic methods in hydrology : problems of development and interrelation"
- March 30 – April 2, IAHS, Goslar-Hahnenklee, Germany, International Workshop on Status and Perspectives of Hydrology in Small Basins
- April 13-17, IAHS, Puebla Cholula, Puebla, Mexico, International Conference on Water, Environment and Health Sciences : The Challenges of the Climate Change (ICWEHS)
- April 14-17, IAVCEI, Malargue, Argentina, 3rd International Maar Conference
- April 19-24, EGU, Vienna, Austria, European Geosciences Union General Assembly
- April 19 - May 2, IUTAM/IUGG, Singapore, Republic of Singapore, International Spring School "Fluid Mechanics and Geophysics of Environmental Hazards
- April 20-23, IAHS, Vienna, Austria, HydroEco'2009: 2nd International Multidisciplinary Conference on Hydrology and Ecology : Ecosystems Interfacing with Groundwater and Surface Water.

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A.T. Ismail-Zadeh, Secretary General [<http://www.IUGG.org>]
E-mail: Alik.Ismail-Zadeh@gpi.uka.de Fax: +49 721 71173.

Note: Contributions to IUGG E-Journal are welcome from members of the IUGG family. Please send your contributions to Alik Ismail-Zadeh by e-mail (insert in Subject line: *contribution to E-Journal*). The contributions will be reviewed and may be shortened by the Editor.