



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

## **The IUGG Electronic Journal**

**Volume 12 No. 3 (1 March 2012)**

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.

### **Contents**

1. Comptes Rendus of the XXV IUGG General Assembly
2. IUGG Executive Secretary Job Vacancy
3. IUGG endorses the International Year of Deltas
4. Visioning process: Toward a new IAHS initiative
5. News from the International Council for Science
6. Report on the IAGA-III Symposium
7. Report on the Indo-US Workshop on Intraplate Seismicity
8. Obituaries
9. Awards & Honors
10. IUGG-related meetings occurring during March - May

---

### **1. Comptes Rendus of the XXV IUGG General Assembly**

An electronic PDF copy of the Comptes Rendus of the XXV IUGG General Assembly is now available at the IUGG web site (<http://www.iugg.org/assemblies/2011melbourne>). Thanks to all who helped to compile the proceedings of the assembly! The Comptes Rendus will be published in March 2012 and sent to the 2011 Council Delegates, National Committee officers, representatives of Adhering Bodies, and to major libraries.

---

### **2. IUGG Executive Secretary Job Vacancy**

IUGG is seeking to recruit a qualified candidate for the post of Executive Secretary of the organization. The Executive Secretary reports to the IUGG Secretary General and to the IUGG Bureau and is responsible for implementing the plans of the organization and for the day-to-day operations of IUGG. In this capacity, the candidate will be expected to provide the following basic services under the direction of the IUGG Secretary-General:

- Maintain correspondence and communication with IUGG National Committees, Adhering Organizations, Executive Committee, Associations, and Union Commissions and Committees;

- Keep close contact with the Local Organizing Committee for IUGG General Assemblies;
- Maintain IUGG electronic databases and keep technical documents in proper order in the IUGG Secretariat;
- Supervise the IUGG web-master and prepare updates of the IUGG web-page in timely fashion;
- Prepare supporting documents for the IUGG Bureau, Executive Committee and Council Meetings;
- Prepare IUGG Annual Reports and edit IUGG Yearbooks ensuring the accuracy of the contact information;
- Collect and compile data and information for the monthly IUGG E-Journals;
- Assist in technical screening of IUGG grant applications.

IUGG is seeking candidates who:

- Have an advanced university degree in Earth and space sciences and a record in the conduct of scientific research;
- Have experience in international collaboration and management of scientific programs;
- Possess full command of written and spoken English. A working knowledge of French and a basic knowledge of other languages are considered an advantage.

The Executive Secretary will be employed by the Helmholtz Centre Potsdam GFZ German Research Centre for Geosciences and will be located in Potsdam, Germany. The appointment will start on 1 June 2012 for a period of three years with an initial six-month term of probation. The incumbent is expected to reside in Potsdam, certainly after confirmation at the end of the probationary period. Further information may be obtained by writing in confidence to Dr. Alik Ismail-Zadeh, IUGG Secretary General.

Applications with full CV, list of publications and names of three references should be addressed to the GFZ by post or by e-mail (as a PDF file) before **1 April 2012**. Address: Helmholtz-Zentrum Potsdam Deutsches GeoForschungsZentrum, Abt. Personal- und Sozialwesen, Telegrafenberg, 14473 Potsdam, Germany. E-mail: [personal@gfz-potsdam.de](mailto:personal@gfz-potsdam.de) (CC: [Alik.Ismail-Zadeh@kit.edu](mailto:Alik.Ismail-Zadeh@kit.edu)). Please insert "IUGG Executive Secretary Job Application" in the e-mail Subject line or in Ref. of a letter.

---

### **3. IUGG endorses the International Year of Deltas**

Several distinguished geoscientists proposed the year 2013 to be designated as the International Year of Deltas (IYD) (i) to increase the awareness of and the attention to the value and vulnerability of deltas worldwide, (ii) to promote and enhance international and regional cooperation at the scientific, policy, and stakeholder levels, and (iii) to focus and accelerate a comprehensive research agenda toward understanding and modeling these complex socio-ecological systems as the cornerstone of ensuring preparedness in protecting or restoring them in a rapidly changing environment. The IYD calls for developing an effective paradigm of basic research in service to society that demonstrates the power of research to improve conditions in these focused hotspots of vulnerability and change: deltas around the world. The IYD is proposed as a year of awareness, a year of focus, and a year for launching a 10-year committed initiative, in intellect and resources worldwide, toward practical and goal-oriented efforts to comprehensively address the predictive understanding of these vulnerable systems and to use this understanding to protect and restore them.

The IYD initiative group approached IUGG with a request to endorse and co-sponsor the International Year of Deltas. The International Association of Hydrological Sciences (IAHS) and the International Association for the Physical Sciences of the Oceans (IAPSO) were very supportive of the initiative. Considering the importance of scientific research on deltas for the benefit of society and the enthusiasm of leading experts in the field to promote the scientific activity, the IUGG Executive Committee endorsed unanimously the IYD proposal. IUGG appointed two liaison persons, Gordon Young (Canada) of IAHS and Gerardo Perillo (Argentina) of IAPSO, to the Scientific Committee of the International Year of Deltas.

More information on IYD can be found at: <http://www.iyds-2013.org/>

---

#### **4. Visioning process: Toward a new IAHS initiative**

At the IUGG General Assembly in Melbourne (Australia) in July 2011, the International Association of Hydrological Sciences (IAHS) decided to initiate a visioning process to identify major challenges of vital importance for hydrology in the near future, with the aim to shape a new Science Initiative for the decade 2013-2022. Science Initiatives, like the International Decade 2003-2012 on Prediction in Ungauged Basins (PUB), are featured activities of IAHS, which are always attended with much interest by the hydrologic community. With the end of the PUB decade approaching in 2012, IAHS aims to keep the above leading role by shaping a new Science Initiative and, in fact, the IUGG General Assembly hosted in Melbourne a very effective debate that involved a large across-section of the IAHS officers and members. The idea is to start the new Initiative in 2013 during the IAHS Scientific Assembly to be held in Gothenburg (Sweden).

To involve a large part of the scientific community in the above debate, the IAHS Bureau decided to create a new Task Force, with the mandate to suggest a focus, title and the details for the new Initiative. The Task Force will operate for up to two years and is expected to report to the IAHS Bureau, which will take a final decision on the nature of the new Initiative. The Task Force (chaired by Alberto Montanari, University of Bologna, Italy) recently opened a blog to host the discussion on the new Science Initiative. The blog already received more than one thousand single visits and some tens of comments. The discussion (open to the whole geosciences community) is meant to be interdisciplinary, and therefore the contribution of sister disciplines, particularly members of IUGG, is encouraged.

A first summary of the discussion will be compiled in February, and discussions finalized in summer 2012. The Task Force is organizing a brainstorming meeting during the General Assembly of the European Geosciences Union, Vienna (Austria), 22-27 April 2012. In the framework of the Hydrological Sciences programme, a special session entitled “Visionary session on the next Hydrological Decade” will be also organized. A further meeting will take place in Nanjing (China) in 10-12 May 2012, organized by IAHS Vice-President Prof. Liliang Ren. The Task Force will present the results of the discussion during a one-day workshop that will take place in Delft (The Netherlands) on 25 October 2012, in the frame of the celebrations for the 90th Anniversary of IAHS (including the wrapping up meeting of the PUB Initiative). Please join the discussion on the new IAHS Science Initiative 2013-2022 at <http://distart119.ing.unibo.it/iahs/>.

Received from Christophe Cudennec (IAHS Secretary General)

---

## 5. News from the International Council for Science (ICSU)



### *World Data System names its new Executive Director*



Mustapha Mokrane has been appointed as Executive Director of the World Data System (WDS). Dr. Mokrane, currently Science and Information Technology Officer at ICSU's Secretariat in Paris, will take up his appointment in March 2012. As Executive Director, Mokrane will head the newly established WDS International Programme Office, which is hosted by the Japanese National Institute of Information and Communications Technology (NICT) in Tokyo.

### *International Polar Year Conference*

The International Polar Year (IPY) 2012 From Knowledge to Action Conference features the latest polar research results from global leaders in Arctic and Antarctic science. Endorsed by the World Meteorological Organization (WMO) and the International Council for Science (ICSU) as the third and final conference of IPY 2007 – 2008, the From Knowledge to Action Conference will be hosted in Montréal, Canada, 22-27 April 2012. Occurring at a pivotal time for the environment of our planet, the Conference draws international attention to the Polar Regions and global change. Science continues to enhance our understanding of the critical role that the Polar Regions play in the Earth's systems. The Conference will bring together Arctic and Antarctic researchers, policy- and decision-makers, and a broad range of interested parties from academia, industry, non-government, education, Arctic communities, and circumpolar indigenous peoples. Together, these groups will address challenges, share and apply knowledge of the Polar Regions and discuss opportunities and solutions for adapting to global change.

Source: ICSU web-site

---

## 6. Report on the IAGA-III Heliospheric Physics Symposium

The IAGA-III Symposium "Heliospheric physics during and after a deep solar minimum" was held in Luxor, Egypt, 13-17 November 2011, where the IAGA community could share their latest research results, establish a new cooperation in solar and space research, and discuss the consequences and effects of a deep solar minimum. The Symposium focused on the fundamental problems of solar physics and solar cycle and their related physical effects on the space environment including the outer atmosphere and the interplanetary space. The presentations and discussions were also focused on identifying (i) the highest priorities needed for operational services that can guide future researches and (ii) the new high-value capabilities that can be translated into operations. The scientific topics presented at the Symposium covered solar cycle prediction techniques; source regions of the solar wind at solar activity minimum and associated modeling; the impact of prolonged solar minima on global climate change; solar wind at the time of solar minimum and of the rising phase of cycle 24; physics, dynamics, and behavior of the Sun-Earth system over the 11-years solar cycle; particle acceleration near the Sun and in the heliosphere under quiet and active solar conditions; the heliosphere in the local interstellar medium; solar variability; space weather and geo-hazards.



*Participants of the IAGA-III Symposium*

About fifty participants from 21 countries attended the IAGA-III Symposium. The cultural program of the Symposium included excursions to the Luxor & Karnak temples and to the Valley of Kings and queens in Luxor. IUGG co-sponsored the IAGA-III Symposium.

Received from Ahmed Hady, the Symposium co-organizer

---

## **7. Report on the Indo-U.S. Workshop on Intraplate Seismicity**

The Workshop was held at the Institute of Seismological Research, Gandhinagar, Gujarat, India from 15 to 18 January 2012. The major scientific topic of the meeting was to take stock of intraplate seismicity studies in India and USA and to identify future research directions to study this least understood phenomenon. A number of speakers presented results from the analysis of data collected in the Kachchh region (a district of Gujarat) since the 2001 Bhuj earthquake. The results of these studies have important implications for the eastern/central United States, which experiences similar infrequent intraplate earthquakes but has not experienced a large earthquake in recent times. IUGG President Harsh Gupta was invited to present the latest views on reservoir-triggered earthquakes and the plans for deep drilling at Koyna.

Many results of significant scientific importance were presented during the workshop including the following: (i) A large amount of vertical deformation is likely to cause seismicity in the Kachchh region; (ii) viscoelastic stress perturbation due to the 2001 Bhuj earthquake triggered seismicity at a distance of about 200 km for a decade (as observed in the Kachchh and Saurashtra regions); (iii) compelling evidence for the presence of active faults by 3D satellite imagery and trenching in Kachchh; (iv) several models of the regional deformations (e.g., wedge-fault model, crest-trough model, uplift model); (v) deep crustal earthquakes in rift valleys of Kachchh and Narmada can be explained as a response to stress/strain localizations around the mafic high density / high velocity bodies. Fractured and fluid-filled low velocity zones within the bodies act as asperities or earthquake nucleation zones; and (vi) in intraplate regions, aftershocks of large earthquakes can be observed for hundreds of years.

The workshop recommended investigation of the causes of vertical uplift in Kachchh; development of a ground motion prediction equation (GMPE) of India; analysis of strong motions in Kachchh; development of two arrays, viz. the Kachchh Lithosphere Investigation and Kachchh Crustal

Imaging Array to decipher details of the regional crustal structure; and preparation of a high resolution aero-magnetic map of Gujarat. During the workshop potential collaborative projects were formed to further investigate key questions about intraplate earthquakes, including which regions are most at risk of damaging earthquakes, the average long-term rate of large earthquakes in different regions, and the overall scientific framework to explain why intraplate earthquakes occur. More than 100 delegates attended the workshop. The Indian participants were from 25 institutions throughout the country. There were 50 oral presentations and 25 poster presentations. The poster presentations were judged, and the top five were awarded prizes. The workshop was supported by the Indo-US Science & Technology Forum (IUSSTF), New Delhi, and coordinated by B. K. Rastogi (India) and S. E. Hough (USA).

Received from B. K. Rastogi, the Workshop Coordinator (dg-isr@gujarat.gov.in)

---

## 8. Obituary

*Klaus-Peter Schwarz* (1938 - 2012)



Klaus-Peter Schwarz, a world-renowned geodesist and President (1995-1999) of the International Association of Geodesy (IAG), passed peacefully away on Friday, 20 January 2012, in Calgary, Canada. Klaus-Peter was born on 1 February 1938 in Königsberg, Germany. Upon completing High School in Düsseldorf, he began his career as a surveying engineer in 1959. Later he enrolled in the geodetic program at the University of Bonn, Germany, from which he graduated with a Dipl.-Ing. degree in 1965.

He continued his studies and received degrees from universities in Canada (M.Sc. New Brunswick, 1967), Germany (Dr.-Ing. summa cum laude, Berlin, 1971), and Austria (Habilitation, Graz, 1975). After returning to Canada in 1977, he worked at the University of New Brunswick before joining the newly established Surveying Engineering (now Geomatics Engineering) program at the University of Calgary in 1979. He stayed with it for the next twenty-three years and was the head of the Department from 1990 to 1995. Under his leadership, the program flourished and achieved international recognition as one of the top schools in the world for geodesy. His research and teaching was focused on geodesy and in particular on the use of inertial and satellite techniques for navigation and gravity field determination, with special emphasis on the combination of GPS and inertial navigation systems (INS). He made outstanding research contributions to the areas of airborne digital mapping and airborne gravimetry, including the simultaneous determination of position and gravity. To further explore this area of research, a series of International Symposia on Kinematic Geodesy were held between 1981 and 2001 in Banff, Canada. He published over 200 refereed scientific articles in the areas of geodesy and navigation. He supervised a large number of Masters and PhD graduate students, many of whom are now professors and internationally recognized scientists in academia, industry and research organizations throughout the world. Klaus Peter was active in the International Association of Geodesy (IAG) for about 40 years. He started his IAG-related work in 1973, when he was asked to participate in organizing the First IAG International Summer School in Ramsau, Austria - at that time a novel way of teaching advanced research subjects. About ten years later, he was asked to be the program director of the Beijing International Summer School on Local Gravity Field Approximation, the first IAG-sponsored event in China (1984). After serving as president of a number of Special Study Groups (1979-1991) and as a member of the first Cassinis Committee (1980-1982), he was elected President of IAG's

Section IV: Geodetic Theory and Methodology in 1987. Four years later he became First Vice-President of IAG and then Association President. The contributions of Klaus Peter to geodesy were recognized by honorary doctorate degrees from the Wuhan Technical University, China, and the University of Hannover, Germany. He was also elected to full membership in the Russian Academy of Navigation and Motion Control, and was a corresponding member of the German Geodetic Commission. He was also the recipient of Canada's prestigious Killam Fellow award.

Klaus-Peter fully dedicated his life to his family, his beliefs and his profession. He will be remembered for his faith lived out in generosity, kindness, hospitality, leadership, innovation, music, art, books and the great outdoors. His colleagues will always remember him for his numerous contributions to the science of geodesy, as well as for his sharp mind, big heart and engaging personality. His students will always remember him as a great teacher, caring mentor, inspiring role model and, above all, as a life-long supporter and friend. He will be dearly missed.

Michael G. Sideris, IUGG Vice President, Past IAG President (2007-2011)

### ***Marcel Roche*** (1924-2012)



*M. Roche, Washington, 1972*

We mourn the death of Dr. Marcel Roche, who passed away on 17 January 2012, aged 88. He was Director of the ORSTOM (French scientific institute for overseas) Laboratory of hydrology. Also he had been the representative of France at the UNESCO International Hydrological Programme and the WMO Commission of Hydrology. He was a very active member of the International Association of Hydrological Sciences (IAHS), as Secretary and President of the French National Committee for IAHS (1972-1989) and as Secretary and Vice-President of the IAHS International Commission on Surface Water (1971-1983).

Christophe Cudennec, IAHS Secretary General

---

## **9. Awards & Honors**

The following members of the IUGG Associations were elected 2012 AGU Fellows:

***Michael Flasar*** (NASA Goddard Space Flight Center, Greenbelt, Md.), Member of the IAMAS International Commission on Planetary Atmospheres and their Evolution (ICPAE).

***Stephen Self*** (U.S. Nuclear Regulatory Commission, Washington, D.C.), IAVCEI Vice President. Dr. Self was invited by the IUGG President to deliver a Union lecture at the XXV General Assembly in Melbourne, Australia, 2011.

***Thomas Stocker*** (Physics Institute, University of Bern, Switzerland), Member of the Swiss National Committee for Geodesy and Geophysics.

---

## 10. IUGG-related meetings occurring during March – May

A calendar of meetings of interest to IUGG disciplines (especially those organized by IUGG Associations) is posted on the IUGG web site (<http://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.

### *March*

- 4-9, IAG, Madrid, Spain, 7th IVS General Meeting “Launching the Next-Generation IVS Network” (<http://www.oan.es/gm2012>)
- 26-29, DIVERSITAS, ESSP, IHDP, IGBP, WCRP; London, UK; Conference “Planet Under Pressure: New Knowledge Towards Solutions” (<http://www.planetunderpressure2012.net>)

### *April*

- 22-27, EGU, Vienna, Austria, General Assembly of the European Geosciences Union (<http://meetings.copernicus.org/egu2012>)
- 22-27, ICSU, WMO, SCAR, IASC, Montreal, Canada, IPY 2012 - From Knowledge to Action (<http://www.ipy2012montreal.ca>)
- 28-29, ICSU GeoUnions, Istanbul, Turkey, GeoUnions Annual Business Meeting

### *May*

- 16-19, IUGG, EGU, Bacau, Romania, First International Conference on Moldavian Risk (<http://mrconference.ub.ro/program.html>)
- 20-25, Japan Geoscience Union, Chiba-city, Japan, JpGU Meeting 2012 ([http://www.jpгу.org/meeting\\_e/index.htm](http://www.jpгу.org/meeting_e/index.htm))
- 21-24, IAHS, Prague, Czech Republic, GwFR2012 - International Conference on Groundwater in Fractured Rocks (<http://web.natur.cuni.cz/gwfr2012>)
- 21-25, IAVCEI, Olot, Spain, 1st International Congress on management and awareness in protected volcanic landscapes (<http://www.volcandpark1.com>)

---

End of IUGG Electronic Journal Volume 12 Number 3 (1 March 2012)

A.T. Ismail-Zadeh, Secretary General (<http://www.IUGG.org>)  
E-mail: Alik.Ismail-Zadeh@kit.edu 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.**