



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

The IUGG Electronic Journal

Volume 7 No. 11 (November 1, 2007)

This short, 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. Statement from the LOC President – IUGG Perugia GA
2. Young Scientists Event, IUGG XIV General Assembly, Perugia
3. Next IUGG Bureau and Executive Committee Meetings
4. Colombia now a regular member of IUGG
5. Nobel Peace Prize 2007
6. IGY+50 activity: IYPE, eGY, IPY, and IHY
7. News from ICSU
8. News from the International Lithosphere Program
9. Joint IAMAS/IAPSO Liaison Report for the SCOR Annual Executive Committee Meeting
10. Meeting Report: The Ninth Workshop on Non-linear Dynamics and Earthquake Prediction
11. IUGG-related meetings occurring during November 2007 – January 2008

1. Statement from the LOC President – IUGG Perugia GA

It is just over two months since the XXIV General Assembly successfully concluded in Perugia, Italy. It is a pleasure to announce that the authorities of the City, the Province and the Region have unanimously declared the event as unique and most memorable for the region, especially because the outreach of the assembly spanned not only across the length and breadth of the city of Perugia but also extended to other historical cities such as Assisi, Gubbio, Spello, Spoleto, Gualdo Tadino, Corciano and the like. This is also evidenced by the sustained coverage in the newspapers well after the meeting had come to an end.

The Presidents of the Umbria Region and the Province of Perugia and also the Mayor of Perugia kindly join me in expressing our sincerest gratitude and thanks to the IUGG family - including all participants, the Council and the Officers of the Union and of the Associations - for bringing the world of science closer to the people of Perugia, the city and the region, and for the active scientific exchanges that marked this historic event.

We also take this opportunity to express our regrets to all those who in one way or the other faced some inconveniences, and hope that such incidents would not distort or blur the impressive success of the XXIV General Assembly both scientifically and culturally. We continue to strive to remedy any issues that still remain unresolved.

Finally, we are determined to put the experience gained in these four years of organisation of the assembly at the disposal of the IUGG in general and the Melbourne LOC in particular in order to move ahead the noble mission and goals of the Union.

Again, I say thank you to all of you for making the Perugia assembly a unique event.

Prof. Lucio Ubertini
President, LOC of IUGG2007Perugia

2. Young Scientists Event, IUGG XIV General Assembly, Perugia, Italy, 10 July 2007

This event aimed to discuss what IUGG can do to ensure that the future geoscience research community is strong, robust, and well prepared to tackle important questions. It comprised a panel discussion chaired by Kate Heal. Three panelists¹ gave their outlook on several topics relevant to the geoscience research community which were then discussed in an open forum.

Topic 1: How can the best minds be attracted to geosciences?

The panelists and audience identified several factors that may hinder engagement of the best minds in the geoscience research, including: limited exposure to geosciences in primary and secondary education, lack of suitable role models, lack of awareness of the societal relevance of geosciences, and higher salaries in industry. Whilst there was general agreement that geoscientists should take every opportunity to raise awareness of the value and interest of geosciences, a teacher representing IRIS (Incorporated Research Institutions for Seismology) suggested that existing conferences should include sessions to support educators and the dissemination of geoscience teaching tools.

Topic 2: What is the best preparation for interdisciplinary research?

Strong arguments were made for first becoming an expert in one area, but developing flexibility and awareness for interdisciplinary group work as auxiliary skills. A good grounding in mathematics was considered important to assist communication between different scientific disciplines, but it is probably also important that mathematics is taught within an applied context so that its relevance is clear. The benefits of studying abroad were noted. Symposia focusing on big topics, such as climate change, that can only be addressed by multiple disciplines, could also foster interdisciplinary research.

Topic 3: What can IUGG and young scientists do for each other?

Initially this question appeared to be a call to involve younger researchers to ensure the ongoing operation of IUGG, however, passionate comments from IUGG President Uri Shamir made it clear that the needs are of a much broader nature. Many of the senior scientists present clearly cared very strongly for the geoscience community and in fostering the careers of individual members for the good of the individual and collective. This is perhaps not self-evident to younger members of the research community. An important first step for

interactions between IUGG (and other geo-organizations) and young scientists is to have more engagement from younger researchers themselves, but from the low turnout of this group at this meeting (only 20% of the audience of about thirty people), this is a challenge itself.

A number of actions were suggested to increase the engagement of younger researchers within IUGG. Rebranding “young” scientists as “early career” scientists and encouraging them to be conveners in collaboration with more experienced colleagues might increase interaction. Particular attention should be paid to engaging with early career researchers from less-economically developed countries, e.g., through travel grants and campaigning for free access to information and Internet resources. Finally, events that are perceived as of direct utility by early career researchers, e.g. relating to career development, peer-networking, and mentoring from senior scientists, could be included at existing conferences.

¹ Panelists: Masaki Hayashi (Associate Professor, Department of Geoscience, University of Calgary, Canada), Kalachand Sain (Group Leader, National Geophysical Research Institute, Hyderabad, India) and Simona Stefanescu (Senior Scientist and PhD student, National Meteorological Administration, Bucharest, Romania).

Alan Jones and Kate Heal (The University of Edinburgh, UK)
Daniel Pringle (University of Fairbanks Alaska, USA)

3. Next IUGG Bureau and Executive Committee Meetings

Dr. Tom Beer, IUGG President, announced the place and the dates of the next IUGG Bureau and Executive Committee (EC) meetings. Both meetings will be held in Karlsruhe, Germany; the Bureau meeting on 3-4 August 2008 and the EC meeting on 5-6 August 2008.

Items for inclusion in the agenda are required six months before the date of the meeting.

4. Colombia now a regular member of IUGG

The Colombian Committee of Geodesy and Geophysics / Instituto Geográfico Agustín Codazzi, the IUGG Adhering Organization for Colombia, was readmitted as a member in 2000 but since 2003 had remained in Associate Status because there was no possibility to pay the annual dues. However, Dr. William Martínez, Colombian National Delegate at the IUGG Council during XXIV General Assembly in Perugia, recently announced that the Adhering body was ready to begin the payment of dues, which have now been received. We are pleased to welcome Colombia as a new voting member of IUGG. Scientists from Colombia are now eligible to hold office in IUGG and all of our Associations.

5. Nobel Peace Prize 2007

The Nobel Peace Prize 2007 (1/2) went to the Intergovernmental Panel on Climate Change (IPCC) for “their efforts to build up and disseminate greater knowledge about man-made

climate change, and to lay the foundations for the measures that are needed to counteract such change”

IUGG congratulates sincerely those geophysicists who contributed to the IPCC process. The honour of a Nobel Prize is due recognition for the significant efforts that undoubtedly went into this globally important piece of work. This highlights the role that IUGG, IAMAS, IAPSO, IAHS, and IACS scientists play in contributing to public policy and awareness.

6. IGY+50 activity: IYPE, eGY, IPY, and IHY

International Year of Planet Earth

The International Year of Planet Earth (IYPE) was proclaimed for 2008 by the General Assembly of the United Nations in its Plenary Session on the 22nd of December 2005. The aim of IYPE is to demonstrate new and exciting ways in which Earth sciences can help future generations meet the challenges involved in ensuring a safer and more prosperous world. The Programme was initiated by IUGS. IUGG is a Founding Partner of IYPE.

Most recent news from IYPE: China and Gambia established their National Committees; King Carl XVI Gustaf of Sweden gives Patronage to IYPE; Minutes of the second Board meeting released. More information: www.esfs.org.

The official opening of the International Year of Planet Earth – the Global Launch Event (IYPE GLE) will take place on 12 and 13 February 2008 at UNESCO Headquarters in Paris.

Electronic Geophysical Year

The Electronic Geophysical Year, 2007-2008 (*eGY*) is a program of IUGG and provides an opportunity for the international geoscientific community to focus effort on a 21st Century e-Science approach to issues of data stewardship: open access to data, data preservation, data discovery, data rescue, capacity building, and outreach. The development of Virtual Observatories and Laboratories is a central feature of *eGY*. Recent news:

- The Indian National Science Academy (INSA) has set up a committee to promote the four International Years, chaired by Dr. H. Gupta (IUGG Vice-President). A meeting was held in Delhi on October 3-4 2007. Dr. C. Barton, Chair of the *eGY* International Committee and IAGA Past President, represented *eGY* at this meeting.
- *eGY* Annual Meeting will be held on 5-6 March 2008 in Boulder, CO, USA. The main issues are: (i) work planning for the remainder of *eGY*, which ends in December 2008; (ii) post-*eGY* planning (IUGG Union Commission, CODATA Working Group); status reports for *eGY* and related programs (I*Ys, WDCs, CODATA, GEOSS)
- The American Geophysical Union offers to run a quasi-continuous set of articles in EOS on *eGY*.

Web-page: www.egy.org

International Polar Year

The International Polar Year (IPY) is a scientific programme focused on the Arctic and the Antarctic from March 2007 to March 2009. IPY, organized through the International Council

for Science (ICSU) and the World Meteorological Organization (WMO), is actually the fourth polar year, following those in 1882-3, 1932-3, and 1957-8. In order to have full and equal coverage of both the Arctic and the Antarctic, IPY 2007-8 covers two full annual cycles from March 2007 to March 2009 and will involve over 200 projects, with thousands of scientists from over 60 nations examining a wide range of physical, biological and social research topics. It is also an unprecedented opportunity to demonstrate, follow, and get involved with, cutting edge science in real-time.

Recently news on the programme can be found:

http://www.ipy.org/index.php?ipy/detail/report_october_2007/

International Heliophysical Year

The International Heliophysical Year (IHY) has three primary objectives:

- Advancing our Understanding of the Fundamental Heliophysical Processes that Govern the Sun, Earth and Heliosphere
- Continuing the tradition of international research and advancing the legacy on the 50th anniversary of the International Geophysical Year
- Demonstrating the Beauty, Relevance and Significance of Space and Earth Science to the World

Latest news on IHY: <http://ihy2007.org/newsroom/newsroom.shtml>

7. News from ICSU

The following items were taken from the ICSU web site: <http://www.icsu.org>. Please visit this website for more items of interest.

- ICSU Planning Group on Natural and Human-induced Environmental Hazards and Disasters established to plan and make proposals on a possible major new, interdisciplinary initiative to be launched by ICSU in partnership with other likeminded international organizations, released its report. On 29 October 2007 ICSU organized a Consultation Forum to discuss the report and to get comments of the organizations with a direct interest in natural hazards. Extensive comments by the IUGG GeoRisk Commission and International Association of Cryospheric Sciences were forwarded to ICSU. Tom Beer (President), Harsh Gupta (Vice-President), Keith Alverson (IAMAS), Kenji Satake (IASPEI-IAPSO-IAVCEI Tsunami Commission), and Stephen Sparks (IAVCEI) took part in the Consultation Forum.
- The 2006 Annual Report of ICSU was recently published http://www.icsu.org/Gestion/img/ICSU_DOC_DOWNLOAD/1429_DD_FILE_Annual-Report-2006.pdf
- The International Council for Science (ICSU) invites applications for the position of Executive Director of the International Geosphere-Biosphere Programme (IGBP). IGBP is an international, multidisciplinary research programme addressing the causes and effects of global environmental change. It forges interdisciplinary and international research infrastructure and networks of scientists who are concerned about the ways in which

human activities are impacting the Earth System. IGBP is organized under the aegis of ICSU and is headquartered at the Royal Swedish Academy of Sciences in Stockholm.

<http://www.igbp.kva.se/page.php?pid=395>

- Professor Thomas Rosswall will be retiring from his position as Executive Director of ICSU at the end of January 2009 and ICSU is now seeking candidates to replace him. http://www.icsu.org/9_latestnews/latest_26.html

ICSU Regional Office for Africa

The printed science plan on Natural and Human-induced Hazards and Disasters for sub-Saharan Africa will be out by the end of October 2007.

Formulation of two task teams to prepare the two major project proposals (Geo-hazards with the framework on the International Year of Planet Earth; and Hydro-meteorological hazards and disasters in sub-Saharan Africa) have been finalized.

Swedish Research Council Planning Workshop “Swedish - African Research Partnerships for Predicting and Mitigating Natural & Human-induced Hazards” will be held on 9 November 2007 in Sweden.

ICSU Regional Office for Asia and the Pacific

ICSU Regional Office for Asia and the Pacific (ROAP) announced that the National Research Council of Thailand (NRCT) and ROAP are jointly organizing the Consultation on ROAP Science Plans in Chiang Mai, Thailand during November 21-22, 2007. The two-day event will include keynote addresses, scientific lectures, plenary sessions, break-out group discussions, and round table discussion.

Dr. H. Gupta, IUGG Vice-President, and Dr. Sri Widiyantoro, the IUGG representative for ICSU ROAP, will attend the Consultation.

For more information: <http://www.firsticsuroap.org/index.php?lang=en&mod=home>

8. News from the International Lithosphere Program

The ILP is charged with promoting multidisciplinary research projects of interest to both the geological ([IUGS](#)) and geophysical ([IUGG](#)) communities.

The ILP web-page has been recently updated: <http://sclilp.gfz-potsdam.de/>. The page contains information on the themes (geoscience of global change, contemporary dynamics and deep processes, continental and oceanic lithosphere); descriptions of the new, active and former ILP projects and reports; workshops held and planned, and other topics.

9. Joint IAMAS/IAPSO Liaison Report for the SCOR Annual Executive Committee Meeting

The full text of the Report will appear at the IUGG web-page in November 2007.

The SCOR Executive Committee (EC) meeting was held in Bergen, Norway, 25-28 August 2007. The most important results of the SCOR EC meeting are as follows.

1. A moment of silence was observed in honor of prominent oceanographers and SCOR participants and friends, including Dale Curtiss Krause, retired from UNESCO in Paris, and Grant Ingram, University of British Columbia.
2. Review of responses to the action items from the 2006 meeting.
3. The EC reviewed the status of SCOR's various WGs, which provide SCOR's leading contribution to advancing the science (typically, 2 new groups are started each year and each produces one or more published products over 3-4 years). Most of the 15 established groups are making good progress—a few were disbanded after completing their work and a few others need a bit more prodding (but no more money) to get their products done. Both of the new groups established last year (WG 129: Deep Ocean Exchanges with the Shelf; WG 130: Automatic Plankton Visual Identification) are off to strong starts (Mike MacCracken serves as SCOR liaison to WG 129 and attended the opening half-day of their initial meeting in Perugia in July during the IUGG General Assembly). In addition, SCOR is helping one of its earlier groups to publish a second volume (and edition) of a book on *Photosynthetic Pigments in Oceanography* that has previously sold out. It was agreed that SCOR would consider a range of publication options, including switching from UNESCO Press, which has limited flexibility, to an experienced publisher for at least those of the WG reports that do come out as books.
4. The EC and national representatives considered each of the three proposals for new WGs in considerable detail. These included:
 - a. WG on Land-Based Nutrient Pollution and the Relationship to Harmful Algal Blooms in Coastal Marine Systems.
 - b. WG on the Legacy of in situ Iron Enrichment: Data Compilation and Modeling: This was a revised proposal from 2006.
 - c. WG on the Coral Triangle: The Centre of Marine Diversity
5. The SCOR EC and national members then turned to review of the large-scale ocean projects that SCOR cosponsors, including GLOBEC, GEOHAB, IMBER, GEOTRACES, and SOLAS.
6. Review was also made of the research programs dealing with ocean carbon and related human influences
7. Significant attention was devoted to the issue of enhancing SCOR's capacity-building activities.
8. SCOR's relations with various intergovernmental organizations were also considered, in particular with the Intergovernmental Oceanographic Commission. SCOR leadership participated in the recent IOC General Assembly, representing both SCOR and also serving as the representative of ICSU to IOC. In general, relationships and joint activities are going well.
9. With regard to relationships with various non-governmental bodies, there were a number of reports:
 - a. Within the ICSU family, SCOR is active with IGBP, WCRP, SCAR, and SCOPE.
 - b. Reports were presented by the three international associations that have liaisons to SCOR: IABO, IAMAS, and IAPSO. As part of the IAMAS report, Mike MacCracken reported on the climate change resolution passed at the IUGG General Assembly. As part of the IAPSO report, Lawrence Mysak reported on both IAPSO activities (including the award of the 2007 Prince Albert Medal to Prof. Russ Davis of Scripps, and IUGG's approval of the new International Association for Cryospheric Sciences

(IACS). In addition, an invitation was offered to the SCOR community to participate in the joint IAMAS-IAPSO-IACS Scientific Assembly in Montreal from 19 to 29 July 2009.

- c. Reports were also received from a number of affiliated programs and other organizations.
10. A number of national members reported on their nation's activities. Of particular note, Dan Walker of the White House Office of Science and Technology Policy, reported on the development of a ten-year plan for ocean research activities in the United States, indicating that a unique and effective aspect of their approach was to organize the effort around user needs. He indicated he was hopeful this would help to gain additional budget resources for ocean research activities.
11. There was considerable discussion of the plans for SCOR's 50th anniversary celebration in Woods Hole in October 2008.
12. SCOR's finances and a recent audit were reviewed by a panel of national members, and found to be in good order.

Michael MacCracken, Past President of IAMAS
Lawrence Mysak, President of IAPSO

10. Meeting Report: The Ninth Workshop on Non-linear Dynamics and Earthquake Prediction

The Ninth Workshop on Non-linear Dynamics and Earthquake Prediction was held in the Abdus Salam International Centre for Theoretical Physics in Trieste (Italy) from 1 to 13 October 2007. The Workshop was organized by Profs. V. I. Keilis-Borok of UCLA, G. F. Panza of the University of Trieste, and A. A. Soloviev of the Russian Academy of Sciences, Moscow. The Workshop participants represented 23 countries from Africa, Americas, Asia, and Europe. Several world-leading scientists, including Prof. R. Hoffmann of Cornell University, Ithaca, the 1981 Nobel Prize Winner in Chemistry, delivered lectures at the Workshop (see the Workshop Program at:

http://cdsagenda5.ictp.trieste.it/full_display.php?smr=0&ida=a06219).

The Workshop was endorsed by the IUGG GeoRisk Commission (represented by Prof. A. Ismail-Zadeh, IUGG Secretary-General and past President of the Commission, and Prof. V. G. Kossobokov, Vice-President of the Commission) and by the IASPEI Commission on Earthquake Hazard, Risk and Strong Motion (represented by Prof. G. F. Panza).

The workshop was dedicated to training in advanced methodologies of R&D in the fundamental studies of evolution and dynamics of the Earth lithosphere and its instability based on considering the Earth lithosphere as a hierarchical non-linear dissipative system. These studies create approaches to numerous applied problems related to extreme events and their consequences, such as earthquake prediction, estimation and mitigation of seismic hazard, prospecting for mineral resources, etc. Extreme events that may trigger natural disasters are considered as critical transitions in complex systems (e.g., the Earth lithosphere, atmosphere, magnetosphere, and ocean, as well as more generally in physics, chemistry, etc.). This general approach gives the possibility to search for analogues between precursors of disasters of different types. Among practical aspects, principal attention of the Workshop was given to the accuracy and statistical significance of earthquake prediction methods, their rate of errors, and to the interaction with disaster management authorities. As a result of the

Workshop, several participants from the Centre for Earthquake Studies (Islamabad, Pakistan) are now visiting the ICTP for the extended practical course in earthquake prediction and the case study of seismic activity in Pakistan and the surroundings.

Prof. V. Kossobokov
Vice-President, IUGG GeoRisk Commission

11. IUGG-related meetings occurring during November 2007 – January 2008

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 appropriate to their disciplines.

- November 6-7, EMSEV, Bandung, Indonesia, IWSEP2007 International Workshop on Seismo Electromagnetic Phenomena: Recent Progress
 - November 12-16, Addis Ababa, Ethiopia, IHY-Africa Space Weather Science and Education Workshop.
 - November 19-22, Rio de Janeiro, Brazil, 10th International Congress of Brazilian Geophysical Society: Unveil the Earth.
 - November 19-24, IAVCEI, Shimabara, Japan, Cities on Volcanoes 5
 - December 2-7 IAHS Fremantle, Western Australia, GQ2007: Securing Groundwater Quality in Urban and Industrial Environments
 - December 10-14 AGU Fall Meeting, San Francisco, CA, USA
 - December 18-21 IAHS Roorkee, India Water, Environment, Energy and Society (WEES-07)
-

End of IUGG Electronic Journal Volume 7 Number 11 (November 1, 2007)

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