

The IUGG Electronic Journal

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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. Please forward this message to those who will benefit from the information. Your comments are welcome.

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1. Meetings selected for IUGG support in 2006

IUGG co-sponsors symposia and meetings appropriate to our disciplines of study. \$20,000 (USD) is allocated annually to assist meetings, and especially to support the participation of young scientists and scientists from developing countries. Officers of the Union, Associations and Union Commissions propose meetings to receive these awards. For 2006, IUGG will support the following meetings. All available funds are now allocated.

Cities on Volcanoes 4, January 23-27, Quito, Ecuador eGY Planning Meeting, March 1-2, Boulder, Colorado BALWOIS Conference On Water Observation and Information Systems for Decision Support, May 23-26, Ohrid, Macedonia Symposium on Extreme Natural Events and Societal Implications, July 15-19, Munich, Germany (EuroScience Open Forum 2006) COSPAR 36th Scientific Assembly, July 16-23, Beijing, China 1st International Symposium of International Gravity Field Service (IGFS), August 28 - September 1, Istanbul, Turkey 18th Electromagnetic Induction Workshop, September 17-21, Barcelona, Spain 3rd IAGA/ICMA Workshop on Vertical coupling in the Atmosphere-Ionosphere System, September 18-22, Varena, Bulgaria 6th General Assembly of Asian Seismological Commission Symposium On the Earthquake and Tsunami Disaster Preparedness and Mitigation, November 7-10, Bangkok, Thailand 5th FRIEND Conference on Water Resource Variability: Processes, Analyses, and Impacts, November 27 - December 1, Havana, Cuba

2. IAG Resolution on Leap Seconds

The International Earth Rotation and Reference Systems Service, located at the Paris Observatory, France, has decided that a leap second will be added at the end of 31 December 2005 – the first for seven years. Leap seconds are small adjustments to Universal Coordinated

Time (UTC), which keep ordinary clock time synchronised with the rotation of Earth and thus with the location of the Sun in the sky. (Space geodetic measurements show that the planet's spin rate is slowing by about 2 milliseconds per day per century, caused by tides and other effects.) There have been 21 leap seconds added since 1972. However, there is now a proposal before the United Nations International Telecommunications Union (ITU) to abolish leap seconds from December 2007. The proposed change would cause UTC to drift with respect to solar time. The proponents of the change consider leap seconds to be a problem for precision timing applications.

The International Association of Geodesy (IAG) Executive Committee, at its meeting on August 24, 2005, in Cairns, Australia, reviewed the report of the IERS (International Earth Rotation and Reference Systems Service) presented by Daniel Gambis (Observatoire de Paris), took note of the analysis by K. Seidelmann (IGS Electronic Mail Number 5192, 23 August 2005) and adopted the following resolution:

On the basis of the outcome of the surveys conducted by IAG's International Earth Rotation and Reference Systems Service (IERS), which indicate that a large majority in the IAG user community is for maintaining the status quo, the IAG EC recommends at this time no change in the current method of relating UTC to UT1.

Background material taken from a press release of the Royal Astronomical Society: RAS PN05/41: RAS STATEMENT ON THE PROPOSED ABOLITION OF LEAP SECONDS on the RAS web site: www.ras.org.uk

3. Update on UN Declaration on International Year of Planet Earth

On November 11th, a major breakthrough was made that advances the political process leading to UN proclamation of the Year. On that date, a Draft Resolution regarding the proclamation of an International Year was adopted by the Second Committee of the UN General Assembly, clearing the way for proclamation of 2008 as the International Year at the plenary Session of the UN General Assembly. A positive decision by the UN is expected on December 20th or 21st 2005. This declaration follows from a persistent and dedicated effort launched by the International Union of Geological Sciences (especially E. DeMulder) that was supported by a number of scientific organizations including IUGG. The Declaration notes that "the wealth of scientific information available on planet Earth remains largely untapped and hardly known to the public or to policymakers and decision makers," and takes into account "the crucial role that the Year could play, inter alia, in raising public awareness of the importance for sustainable development of the Earth's processes and resources, disaster prevention, reduction and mitigation, and capacity-building for the sustainable management of resources..."

4. Short report on the IASPEI Scientific Assembly in Santiago de Chile

The Department of Geophysics of the University of Chile and the Instituto Geografico Militar (IGM), the local organizers under the leadership of Diana Comte, worked hard to produce a very successful meeting. It was held in a most suitable venue, the Diego Portales Conference Centre in Santiago de Chile, Chile, 02 - 08 October 2005.

There were 15 scientific symposia covering all parts of the scientific fields of IASPEI, with 220 talks given and about 200 posters shown. In addition, a large number of planning and 'business' meetings were held. 360 persons from 42 countries attended.

Two candidate venues for 2009 have been proposed: Capetown and Copenhagen. The decision on where to hold the 37th General Assembly has been though postponed to spring 2006.

The tentative IASPEI scientific program for the Perugia IUGG 2007 General Assembly was approved.

A number of Resolutions were passed by the Assembly Delegates. Only the titles of these resolutions are listed here, but the full text can be obtained from the IASPEI Secretary General.

Resolution 1 - International Active-monitoring Network
Resolution 2 - Mitigation of Earthquake Risk
Resolution 3 - Africa Array
Resolution 4 - Seismological Reference Model
Resolution 5 - Appreciation

Article contributed by Peter Suhadolc

5. Meeting Report on the 8th Workshop on Nonlinear Dynamics and Earthquake Prediction

The vulnerability of our civilization to large earthquakes is rapidly growing, raising earthquakes to the ranks of major threats faced by humankind. Earthquake prediction is necessary to reduce the threat by undertaking disaster-preparedness measures. The Eighth Workshop on Nonlinear Dynamics and Earthquake Prediction held in the Abdus Salam International Centre for Theoretical Physics in Miramare-Trieste, Italy, 3 - 15 October 2005 was dedicated to training in advanced methodologies of R&D in fundamental studies of the Earth's evolution and dynamics, of the instability of the Earth lithosphere, and in numerous applied problems, such as earthquake prediction, estimation and mitigation of possible seismic hazard, disaster risk management etc. The workshop, organized by SAND Group of the Centre (www.ictp.it/pages/research/sand.html) and led by Prof. V. Keilis-Borok, University of California at Los Angeles (USA) and International Institute of Earthquake Prediction Theory, Russian Academy of Sciences (Russia), and Prof. G. Panza of University of Trieste (Italy), was endorsed by the IUGG Commission on Geophysical Risk and Sustainability and by the IASPEI Commission on Earthquake Hazard, Risk and Strong Motion. The Workshop participants represented 20 countries of Africa, America, Asia, and Europe.

The workshop facilitated the link between theoretical and experimental researchers, adequately explaining new achievements in seismology to the wide audience of scientists and engineers, and giving a unified treatment of those methods of seismology that are currently used in interpreting actual data. Among practical aspects, large attention has been given to the accuracy and statistical significance of prediction methods, their rate of errors, and to the interaction with disaster management authorities.

Article contributed by Alik Ismail-Zadeh

6. Meeting Report on the 2nd International Conference of The Nigerian Union of Planetary and Radio Sciences (NUPRS)

The 2nd International Conference of The Nigerian Union of Planetary and Radio Sciences (NUPRS) was held in Port Harcourt, Nigeria on 24 - 26 August 2005. Over 500 participants took part in the Conference. The IUGG GeoRisk Commission's Lecture "Tsunami Disaster" (http://iugg-georisk.org/presentations/Ismail-Zadeh/aiz_nigeria05/index.html), a keynote address, was delivered on behalf of Prof. A. Ismail-Zadeh (Commission's President) by Prof. S. C. Teme (LOC Chairman). This Lecture formed the basis for the Conference. Over forty papers were presented by Nigerian scientists at technical sessions during the Conference. IUGG sectional meetings were organized during the Conference. The 2007 NUPRS Conference will be held in Abuja, the Federal Capital City of Nigeria.

Article contributed by S. C. Teme

7. IUGG-Related Meetings Occurring during December 2005 – February 2006

A calendar of meetings of interest to IUGG disciplines (especially those organized or sponsored by IUGG Associations) is posted on the IUGG Web Site [www.iugg.org]. Specific information about these meetings, including web links, can be found there. Individual Associations also list more meetings on their web sites appropriate to their disciplines.

December 5 - December 9, 2005

AGU; San Francisco, California, USA; Fall Meeting

December 7 - December 9, 2005

Indian Geophysical Union; Bhopal, India; 42nd Convention on Earth System Processes related to Earthquakes, Tsunamis, and Volcanic Eruptions

January 4 – 6, 2006

IAHS; Dindigul, Tamilnadu, India; IGC 2006 International Groundwater Conference on Sustainable Development and Management of Groundwater Resources in Arid and Semi-Arid Regions

January 21- 26, 2006

IGBP; Boulder, Colorado, USA; First Integrated Land Ecosystem Atmosphere Processes Study (iLEAPS) Science Conference

January 23- 27, 2006

IAVCEI; Quito, Ecuador; Cities on Volcanoes 4

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