



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

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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 (<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. IUGG Annual Report for 2007

The IUGG Annual Report provides a summary of the activities of the Union, IUGG Associations and Union Commissions. Thanks to the input from the Associations and Commissions, the 2007 IUGG Annual Report is now completed and posted on the IUGG web-page: <http://www.iugg.org/publications/reports/report2007.pdf>. We invite you to download this impressive summary of last year’s activities.

2. News from the International Council for Science (ICSU)

Natural and Human-induced Environmental Hazards and Disasters

The ICSU Planning Group on Natural and Human-induced Environmental Hazards and Disasters was established by the ICSU Committee on Scientific Planning and Review (CSPR) to plan and make proposals on a possible major new, interdisciplinary initiative to be launched by ICSU, in partnership with other like-minded international organizations. In setting the Planning Group its task, the CSPR was particularly keen to ensure that the new initiative would not overlap or duplicate with existing programmes in the area of natural hazards and risk management, but rather build upon, and complement them; it therefore underlined the importance of wide consultation. Before the Consultation Forum held in Paris

on 29 October 2007, IUGG (several Associations and GeoRisk Commission) provided 10-pages of comments on the first report.

Based on the discussion at the Consultation Forum and comments of the invited institutions, the Planning Group prepared a revised version of the Report, which will be put before the CSPR in April 2008 and the Executive Board in May 2008. Before the Report is finally sent to the ICSU governing bodies, the ICSU Executive Director invited IUGG to provide final comments. Accordingly, IUGG provided several suggestions for the improvement of the document. The formal proposal to launch the new interdisciplinary programme on natural hazards and disaster reduction would be presented to the ICSU General Assembly in October 2008.

ICSU Grant Applications supported by IUGG

IUGG supported two Applications for ICSU Grants:

- Mapping GeoUnions to the ICSU Framework for Sustainable Health and Wellbeing, submitted by the International Society for Photogrammetry and Remote Sensing (ISPRS) and
- Fluid Mechanics and Geophysics of Environmental Hazards, submitted by the International Union of Theoretical and Applied Mechanics (IUTAM)

In addition to these, IACS was one of six partners in an application for ICSU Grant (submitted by SCAR) to hold a summer school on "Ice sheet models for the 21st century "

3. News from the International Polar Year (IPY)

The polar regions are critical archives of polar change. Different techniques and disciplines are used to learn about Earth's history over millions, thousands, and hundreds of years. Observations monitor and explore the Earth today, and models developed from these sciences help predict the future. By learning more about the Earth in the past, and how climates have changed previously, we equip ourselves to better predict and understand changes we are experiencing today, and will experience in the future. The IPY Science Day on 12th March focused on change over geological time, especially the glacial and interglacial periods that have occurred during the past million years, and cycles of ocean- atmosphere interactions that give rise to regional climate variations on scales of decades to centuries. Understanding these processes, and the science projects that investigate them, is critical in order to put recent human- induced climate change into context.

4. News from the Electronic Geophysical Year (eGY)

The 2008 eGY General Meeting was held at the Mesa Laboratories of the National Center for Atmospheric Research (NCAR) in Boulder, Colorado, March 5-6, 2008. The meeting brought together 25 people from the US, Europe, and Africa interested in promoting the ideals outlined in the eGY Declaration (<http://www.egy.org/declaration.php>). The meeting started with overviews of some recent successes enabled by modern data management practices and

an overview of eGY. The rest of the meeting consisted of reports and discussion, outlined below. In the extensive discussions, attendees developed a list of eGY accomplishments and further actions. A meeting of the eGY Africa working group followed the general meeting.

Received from Bill Peterson

5. Report on the Workshop “A Systems Analysis Approach to Health and Well-being in the Urban Environment”

The workshop was held at the International Institute for Applied Systems Analysis in Laxenburg, Austria, January 24 - 25, 2008 and covered the state of the science in terms of the factors impacting upon urban health and well-being: environmental factors, natural and human-induced hazards, infrastructure, behavioural, communicable and chronic disorders, food and nutrition, inequality in health delivery, economic and policy factors, and social issues. Presentations were followed by panel discussions. The final sessions were devoted to integration and synthesis, and a discussion of the recommendations to be made to the ICSU Planning Committee, which was meeting on the following day. Members of the Planning Committee were also present at the workshop.

Policy makers need multidisciplinary analysis, but this is very difficult to produce. The overall aim of the systems analysis approach is to produce evidence to inform policies, and the outputs would be targeted to influence policy makers. What would a systems analysis of urban health contain? Points made:

- Distinguish between different causes of ill-health, differentiate by age, gender, income
- Identify interventions and costs of intervention
- Identify external benefits and spill-over effects
- Develop long-term links between urban health and urban population dynamic
- Emphasise connections and fluxes, integrate fuzzy logic, integrate the use of GIS
- Make informed predictions
- Propose changes, remediation to influence health
- Produce outputs in suitable language for policy makers
- Identify key stakeholders and bring them in up front in developing the approach
- Allow for powerful visual representations

Workshop participants agreed that research on urban health has been done to date in an ad-hoc and piecemeal fashion (in separate “silos” corresponding to the various sectors), hence there is the need for a systems approach disaggregating data and bottom-up analyses, while looking at the system as a whole. Also there is a need to provide decision makers with evidence of the costs and impacts of policies on urban health, greenhouse gas emissions, adaptive capacity and economic growth – a nexus of key issues. Complexity arises through the interaction between the different sectors on the various determinants of health. Urban health is both a cause and a consequence of urban development – people move to cities in order to access various benefits of urban life including jobs, higher incomes, and health services, while at the same time their health is impacted upon by pollution, lifestyle, housing level, infectious diseases etc. However, the demographic transition (rural to urban) is in the long term responsible for increasing life expectancy, a drop in mortality from infectious diseases and a corresponding increase in the proportion of deaths from non-communicable diseases.

The recommendation was made that ICSU should pick up on the work done by the "urban settings" knowledge network of WHO's Commission on the Social Determinants of Health. There are links between global processes, urban dynamics and localised determinants of health: each hierarchical level may interact with other levels, and each level may be influenced by external factors. The systems approach should aim to redress the balance in the evidence base between developed and developing world. The workshop concluded that the work of Planning Committee should be inter-disciplinary rather than multi-disciplinary (i.e. integrating the various disciplines which have been presented).

Received from Ania Grobicki, IUGG representative at the meeting

6. IUGG-related meetings occurring during April – June 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.

- April 5-10, IAGA, Cairo, Egypt, First Middle East-Africa, Regional IAU Meeting.
- April 13-18, Vienna, Austria, General Assembly of the European Geosciences Union.
- May 6-8, IAHS, Toronto, Canada, 4th International Symposium on Flood Defence.
- May 5–9, Liege, Belgium, 40th International Liege Colloquium on Ocean Dynamics, and Advanced Research Workshop on Oceanography of the rapidly changing Arctic and Sub-Arctic.
- May 10-14, Banff, Alberta, Canadian Geophysical Union Annual Meeting
- May 12-15, IAG, Lisbon, Portugal, Joint Conferences of the Thirteen FIG Symposium on Deformation Measurements and Analysis, and the Fourth IAG Symposium on Geodesy for Geotechnical.
- May 18-24, IAGA, Crete, Greece, 12th International Symposium on Equatorial Aeronomy (ISEA 12).
- May 19-23, IAMAS, Gijon, Spain, International Symposium "Effects of Climate Change on the World's Oceans".
- May 27-30, AGU, Fort Lauderdale, Florida, USA, Joint Assembly.
- May 27-31, IAHS, Ohrid, Republic of Macedonia BALWOIS 2008 - Third International Conference on Water Observation and Information Systems for Decision Support.
- May 28-31, IAGA, Helsinki, Finland, First International Workshop on High-Energy Particle Precipitation in the Atmosphere (HEPPA).
- June 8-13, IASPEI, Saariselk, Finland, Seismix2008.
- June 9-18, IAGA, Golden, Colorado, USA XIIIth IAGA Workshop on Geomagnetic Instruments, Data Acquisition, and Processing.

- June 15-20, CMG, Longyearbyen on Spitsbergen, Norway 27th IUGG Conference on Mathematical Geophysics: Dynamics in Earth Systems: Flow, Fracture and Waves.
 - June 22-28, IAGA, Prague, Czech Republic, 11th Castle Meeting on New Trends in Geomagnetism: Palaeo, Rock and Environmental Magnetism.
 - June 24-28, IAHS, Kampala, Uganda, Intl Conference "Groundwater & Climate in Africa".
 - June 23-27, IAG, Chania, Crete, Greece, International Symposium on "Gravity, Geoid and Earth Observation: GGEO 2008"
 - June 29 - July 5, IAMAS, International Ozone Commission, Tromsø, Norway, Quadrennial Ozone Symposium.
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End of IUGG Electronic Journal Volume 8 Number 4 (April 1, 2008)

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